

Qy	1	ATTAAACGGCCGTGTAGAAAGGACGAAAGGGGGGCTTCGCTCTTTGGACCTTTCA	60
Db	1	ATTAAACGGCCGTGTAGAAAGGACGAAAGGGGGGCTTCGCTCTTTGGACCTTTCA	60
Qy	61	TGCTCGTTTTTTTTTTCAGATGTGGCTGTGGGCGCAAGTCCAGCAGCCAGCTTA	120
Db	61	TGCTCGTTTTTTTTTTCAGATGTGGCTGTGGGCGCAAGTCCAGCAGCCAGCTTA	120
Qy	121	AGCTTACTCTTCTGTGAAGGGGAAAGTATCCCTGTGGAAAGCGGTAAACTTGTGGAG	180
Db	121	AGCTTACTCTTCTGTGAAGGGGAAAGTATCCCTGTGGAAAGCGGTAAACTTGTGGAG	180
Qy	181	GGGGTGGGGGACGTAGATCTTCCCAATGCGACGGCAATGATGTGGCTTGAGCTGTGTC	240
Db	181	GGGGTGGGGGACGTAGATCTTCCCAATGCGACGGCAATGATGTGGCTTGAGCTGTGTC	240
Qy	241	AGAGACGGGCTCGACGTGTCTGAAGGAGGCCCGGAGGGGGGCGGGAGATGTGCCCAAGAA	300
Db	241	AGAGACGGGCTCGACGTGTCTGAAGGAGGCCCGGAGGGGGGCGGGAGATGTGCCCAAGAA	300

Db	241	AGGAGCCGGGCTCGACGCTGTCTTGAGGGAGGCCCGAGAGGGGGCGGGGAGGTGGCCACACAGAA	300
Qy	301	CGCGGGTCTGTGTAAGAGAGCGTTGGGAGAAATTCGATTCGAGAGAGGAGAAACCGGATTT	360
Db	301	CGCGGGTCTGTGTAAGAGAGCGTTGGGAGAAATTCGATTCGAGAGAGGAGAAACCGGATTT	360
Qy	361	GAAGAAGAGCGAGCGCTGAGAGGGGGAGGGGGCTGTGAAGATGGCGTGGCTCTCTCCGG	420
Db	361	GAAGAAGAGCGAGCGCTGAGAGGGGGAGGGGGCTGTGAAGATGGCGTGGCTCTCTCCGG	420
Qy	421	GGCGGTGCTTCGGTGGGTTTTCATCTTTGATCCCGGGGCTTCCTGCTGATCTTGTC	480
Db	421	GGCGGTGCTTCGGTGGGTTTTCATCTTTGATCCCGGGGCTTCCTGCTGATCTTGTC	480
Qy	481	CTCAGCATCTGGAATCAGAGAGACCCCATGGCATCTGAGGTGCTTATGCTCTGCGATGCC	540
Db	481	CTCAGCATCTGGAATCAGAGAGACCCCATGGCATCTGAGGTGCTTATGCTCTGCGATGCC	540
Qy	541	CATCAAGAAAATAGCGCATAGAAGTGTGATTCCTCAGAGAGACAAATATATAAAAGAC	600
Db	541	CATCAAGAAAATAGCGCATAGAAGTGTGATTCCTCAGAGAGACAAATATATAAAAGAC	600
Qy	601	AACCTCATAGCCCTTGAAAGAGTGCATCCAGTTAGGCAATTAACCACTGAGGGGAGGCT	660
Db	601	AACCTCATAGCCCTTGAAAGAGTGCATCCAGTTAGGCAATTAACCACTGAGGGGAGGCT	660
Qy	661	GAGTACCAAAACAGAGCGGTATGTCTCATGCAAGATTTCTACGTGGTGAAGATATCTT	720
Db	661	GAGTACCAAAACAGAGCGGTATGTCTCATGCAAGATTTCTACGTGGTGAAGATATCTT	720
Qy	721	CTTTCCCACTGAGAGGAGGCAACTGACCCCTGCTCATCATCATGACTTTCTGTTTCAA	780
Db	721	CTTTCCCACTGAGAGGAGGCAACTGACCCCTGCTCATCATCATGACTTTCTGTTTCAA	780
Qy	781	GACCGTATGCACTGTGACCTTCGGCTACTTCCGGGAGCAATTTGGATTCGGGCCCCGATGA	840
Db	781	GACCGTATGCACTGTGACCTTCGGCTACTTCCGGGAGCAATTTGGATTCGGGCCCCGATGA	840
Qy	841	TTACTTGTATTCCTCTGCAAGTGAAGCCGCTGATTTGAACTCTGTAGCTCTGAGACTAGTG	900
Db	841	TTACTTGTATTCCTCTGCAAGTGAAGCCGCTGATTTGAACTCTGTAGCTCTGAGACTAGTG	900
Qy	901	TTCCCTATTCATATGTGTGTCACGACGATGAGTTCAATTTAAGAACAATTCACATTAAGA	960
Db	901	TTCCCTATTCATATGTGTGTCACGACGATGAGTTCAATTTAAGAACAATTCACATTAAGA	960
Qy	961	GGCGGAATTTCTGAGAAAGCTGCTTCCAGGATACATCAAGAACTTCACACGAAACCTCG	1020
Db	961	GGCGGAATTTCTGAGAAAGCTGCTTCCAGGATACATCAAGAACTTCACACGAAACCTCG	1020
Qy	1021	GACTTGTGCTGCTAAATTTCTATGACCTGTACTGTGTGCAAGGAGGTGGCAAGACATTCG	1080
Db	1021	GACTTGTGCTGCTAAATTTCTATGACCTGTACTGTGTGCAAGGAGGTGGCAAGACATTCG	1080
Qy	1081	GATTGTGCTGATGAACAATCTTTTATCCAAGATGCGTAAATAATGATATATGACCT	1140
Db	1081	GATTGTGCTGATGAACAATCTTTTATCCAAGATGCGTAAATAATGATATATGACCT	1140
Qy	1141	CAAAAGGCTCAACTCAAAAGGGGGGCTTCCAGAAAGAGCGAGAGAGGAGGAGGCTCTTCCAC	1200
Db	1141	CAAAAGGCTCAACTCAAAAGGGGGGCTTCCAGAAAGAGCGAGAGAGGAGGAGGCTCTTCCAC	1200
Qy	1201	ATTTAAGAAGCTAGACTTCTTCAACAAGACATCCCTGATGCTTTTATTTTGGATGCTGACAT	1260
Db	1201	ATTTAAGAAGCTAGACTTCTTCAACAAGACATCCCTGATGCTTTTATTTTGGATGCTGACAT	1260
Qy	1261	GTACAAAGCTCTCTGTGAAGACCTTGACAGCGTGAATGTTTGTGTGTCAGAGCTTCAAGAT	1320
Db	1261	GTACAAAGCTCTCTGTGAAGACCTTGACAGCGTGAATGTTTGTGTGTCAGAGCTTCAAGAT	1320
Qy	1321	AATGATTAACGCTCTTGATGTCAATCCATATATATGATCAATGCAACAGAGAGCCCTT	1380
Db	1321	AATGATTAACGCTCTTGATGTCAATCCATATATATGATCAATGCAACAGAGAGCCCTT	1380

Db	1321	AAGGATTA	CAGCCTCTTGATGTCATCCATTAATATAGATCATGCA	CAAGAGACCCCTT	1380
Qy	1381	AAGCATG	GAAGAACAGTACTCTCAGTTGATCTGAAAGACCGGGCCCCCAAAAGGCTCTGTA		1440
Db	1381	AAGCATG	GAAGAACACAGTACTCTAGTTGATCTGAAAGACCGGGCCCCCAAAAGGCTCTGTA		1440
Qy	1441	TTTCACAGCCATG	GAATTCATCCAGGAGAGAGGCTGACGGGGTGGTACCATGAGACTGA		1500
Db	1441	TTTCACAGCCATG	GAATTCATCCAGGAGAGAGGCTGACGGGGTGGTACCATGAGACTGA		1500
Qy	1501	TGACCATATG	GGTGGCATCCCTGCCCCGAAATGTAAGGGGAAAGGCTTCTGCTTAATAT		1560
Db	1501	TGACCATATG	GGTGGCATCCCTGCCCCGAAATGTAAGGGGAAAGGCTTCTGCTTAATAT		1560
Qy	1561	TGGCATAT	TGACATCTACAGTCTTACAGGTTTGTTAAAGAGTTGAGACACTCTTGGA		1620
Db	1561	TGGCATAT	TGACATCTACAGTCTTACAGGTTTGTTAAAGAGTTGAGACACTCTTGGA		1620
Qy	1621	AGCCCTG	GTACATGACGAGACACCTGTCTCAGTGCATCGCCAGGCTTCTACGTGAACG		1680
Db	1621	AGCCCTG	GTACATGACGAGACACCTGTCTCAGTGCATCGCCAGGCTTCTACGTGAACG		1680
Qy	1681	GTTCACAGC	GCTTCATGTGCACAACAGTATTTAAAGAGATTCCTTGAAAGCCTTCTCCTTC		1740
Db	1681	GTTCACAGC	GCTTCATGTGCACAACAGTATTTAAAGAGATTCCTTGAAAGCCTTCTCCTTC		1740
Qy	1741	CAAAAATG	TTCCGTCTGGGCTCATCTTCTCTCTGGGACAGAGCTCCAGTGCACATCCTG		1800
Db	1741	CAAAAATG	TTCCGTCTGGGCTCATCTTCTCTCTGGGACAGAGCTCCAGTGCACATCCTG		1800
Qy	1801	CATTACT	CAACAGCATCGGTCTCTGGGGAACAACAAGCACAAGTGAACAACAAGGACGA		1860
Db	1801	CATTACT	CAACAGCATCGGTCTCTGGGGAACAACAAGCACAAGTGAACAACAAGGACGA		1860
Qy	1861	AGTGAAGC	CAGGCGTTTCAACCTTGGTGTGTCGTAGTGTTTTACTCGAGACTCACCTTTGGA		1920
Db	1861	AGTGAAGC	CAGGCGTTTCAACCTTGGTGTGTCGTAGTGTTTTACTCGAGACTCACCTTTGGA		1920
Qy	1921	GAAATC	AGTGAAGGCTCGCTTATCTCTGACCCCACTTTCTCACTTACGTGGAGAGAC		1980
Db	1921	GAAATC	AGTGAAGGCTCGCTTATCTCTGACCCCACTTTCTCACTTACGTGGAGAGAC		1980
Qy	1981	TTTGCAATG	CTAACATCAAGTCAACCTTGGAAAAAGCTGAAGTGCAGAGTCAAGTT		2040
Db	1981	TTTGCAATG	CTAACATCAAGTCAACCTTGGAAAAAGCTGAAGTGCAGAGTCAAGTT		2040
Qy	2041	CACCCATTA	AGCCGAAGCCTCAGAAAGACCTGGAACAAGATTCTGTCATCTGTGATCC		2100
Db	2041	CACCCATTA	AGCCGAAGCCTCAGAAAGACCTGGAACAAGATTCTGTCATCTGTGATCC		2100
Qy	2101	CAGATGT	CAGCCTTGTCCCCAGACATGCTGAATTTCTTCTACCTTGGTCAATAAAAAG		2160
Db	2101	CAGATGT	CAGCCTTGTCCCCAGACATGCTGAATTTCTTCTACCTTGGTCAATAAAAAG		2160
Qy	2161	GAGGTAT	TAAAGTGAAGGAGACTGCTCCTCATCTTCTCTGAAGAAACACTTCTC		2220
Db	2161	GAGGTAT	TAAAGTGAAGGAGACTGCTCCTCATCTTCTCTGAAGAAACACTTCTC		2220
Qy	2221	TCTCTC	CTCTTCATGAATGAGCCTTAGTGCTTCAGAGATTGAGGACCGCAGCATCC		2280
Db	2221	TCTCTC	CTCTTCATGAATGAGCCTTAGTGCTTCAGAGATTGAGGACCGCAGCATCC		2280
Qy	2281	CCTC	CACTCAGAGTGGGTGTAACGATTTTCACTGGCCAAACCTTTGCTCACTAT		2340
Db	2281	CCTC	CACTCAGAGTGGGTGTAACGATTTTCACTGGCCAAACCTTTGCTCACTAT		2340
Qy	2341	TGAATTTT	TTCACACCCCAATTCATGCTGGAATGGATTCCTGACCTTGACACT		2400
Db	2341	TGAATTTT	TTCACACCCCAATTCATGCTGGAATGGATTCCTGACCTTGACACT		2400
Qy	2401	TTCCTT	CCCTCTGCTTGAATGGAACCGGACTCTTAATTTCTCAGAGACAGACTAGCT		2460
Db	2401	TTCCTT	CCCTCTCTGCTTGAATGGAACCGGACTCTTAATTTCTCAGAGACAGACTAGCT		2460

QY 2461 GGACATTATCCCTACCTTAAGTCTTTCTCTGACTCCTGGAAGAAATACCTGTAATC 2520
 Db 2461 GGACATTATCCCTACCTTAAGTCTTTCTCTGACTCCTGGAAGAAATACCTGTAATC 2520
 QY 2521 TCTGTAAAGTTTGGGGGATTAAGGGTGTAAACCACTCCGAGCTTCTTCTTCTT 2580
 Db 2521 TCTGTAAAGTTTGGGGGATTAAGGGTGTAAACCACTCCGAGCTTCTTCTTCTT 2580
 QY 2581 TTTTTCGAAAAAGAAAAAGCAACAGACCAATTTGAGCCATTTTCAGATCAGA 2640
 Db 2581 TTTTTCGAAAAAGAAAAAGCAACAGACCAATTTGAGCCATTTTCAGATCAGA 2640
 QY 2641 ACTCAGAGTGTGACAAAGATGCTTAATCGTAGAGTCCCTCAGAAAGCCATGAGT 2700
 Db 2641 ACTCAGAGTGTGACAAAGATGCTTAATCGTAGAGTCCCTCAGAAAGCCATGAGT 2700
 QY 2701 TATGAAGAAAGAGTGAATGATGCTCTGCGAAGAACAGCTCTCTTTAACTCTCT 2760
 Db 2701 TATGAAGAAAGAGTGAATGATGCTCTGCGAAGAACAGCTCTCTTTAACTCTCT 2760
 QY 2761 CTTGATGAATTTCTTAAGCTGAGAGAAATGAAGAGAGGCAATGGGTAATCTTATC 2820
 Db 2761 CTTGATGAATTTCTTAAGCTGAGAGAAATGAAGAGAGGCAATGGGTAATCTTATC 2820
 QY 2821 CCTTTTGTAAAAAGAGAGGAGGCAATGAGGCTGAGAGATCAATAGCCCTCTTGAAG 2880
 Db 2821 CCTTTTGTAAAAAGAGAGGAGGCAATGAGGCTGAGAGATCAATAGCCCTCTTGAAG 2880
 QY 2881 TCTGTGTAAGTCCAGAGGCTATGTAATTAATTAATTTGCAATTTGAATTAATTCG 2940
 Db 2881 TCTGTGTAAGTCCAGAGGCTATGTAATTAATTAATTTGCAATTTGAATTAATTCG 2940
 QY 2941 TTTTTCCTTAAGTGAAGCTTAACCAATGAATTTTAATGATTCATTCCTCCAGAGAT 3000
 Db 2941 TTTTTCCTTAAGTGAAGCTTAACCAATGAATTTTAATGATTCATTCCTCCAGAGAT 3000
 QY 3001 TTTTTCCTCTTCATCTTTTCCAAAGAGTCTCTGTTTGAAGCTAAGGTAAGA 3060
 Db 3001 TTTTTCCTCTTCATCTTTTCCAAAGAGTCTCTGTTTGAAGCTAAGGTAAGA 3060
 QY 3061 GGGGACACTTCTGTCTGTTTAAACAGACAGTCATATCTGTAGGCGCAATATTTCT 3120
 Db 3061 GGGGACACTTCTGTCTGTTTAAACAGACAGTCATATCTGTAGGCGCAATATTTCT 3120
 QY 3121 TAACTAATGGGAGAGAGAGATTTCTGCTTGGTGAAGTCAATCTGTAGGCGCAATAT 3180
 Db 3121 TAACTAATGGGAGAGAGAGATTTCTGCTTGGTGAAGTCAATCTGTAGGCGCAATAT 3180
 QY 3181 CTACCCCCCTGTCTTCATGACAGAGAGTGAAGTGGGGGCTACATATAGCCCTCTCC 3240
 Db 3181 CTACCCCCCTGTCTTCATGACAGAGAGTGAAGTGGGGGCTACATATAGCCCTCTCC 3240
 QY 3241 CCGCTAACAAGAGTGTGTTTTCATCTGATCCTTCACTCTGTGACAGGGAAGAGG 3300
 Db 3241 CCGCTAACAAGAGTGTGTTTTCATCTGATCCTTCACTCTGTGACAGGGAAGAGG 3300
 QY 3301 GGGCTGTATCTCAGGAGATTTGTAATTCCTGTTCTATCCCTTCTATCCACCTG 3360
 Db 3301 GGGCTGTATCTCAGGAGATTTGTAATTCCTGTTCTATCCCTTCTATCCACCTG 3360
 QY 3361 CCTGTAATATGTTAGGCCATACCCCAATATACGTTATATTAAGACACCCGAGCAG 3420
 Db 3361 CCTGTAATATGTTAGGCCATACCCCAATATACGTTATATTAAGACACCCGAGCAG 3420
 QY 3421 TTTCTGCTGCTGCTTCTTGTGCTGCTATGTTTAAACAAGAAAGAAATTTCTGAT 3480
 Db 3421 TTTCTGCTGCTGCTTCTTGTGCTGCTATGTTTAAACAAGAAAGAAATTTCTGAT 3480
 QY 3481 TTTTTCATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 3540
 Db 3481 TTTTTCATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 3540

QY 3541 TTAGGGGTGGAGGAATATTGAGGAGGCTGGTCTTAAGGGAAGAAATGGGAGC 3600
 Db 3541 TTAGGGGTGGAGGAATATTGAGGAGGCTGGTCTTAAGGGAAGAAATGGGAGC 3600
 QY 3601 AACATTTTATTAAGTGTACTATTTGCTTACTTGTGATTTGTCAGAAATGGCAATA 3660
 Db 3601 AACATTTTATTAAGTGTACTATTTGCTTACTTGTGATTTGTCAGAAATGGCAATA 3660
 QY 3661 CAATATAAAGTATATATGTTTAAATTAATTAATTAATTAATTAATTAATTA 3713
 Db 3661 CAATATAAAGTATATATGTTTAAATTAATTAATTAATTAATTAATTAATTA 3713

RESULT 2 US-09-949-016-513

; Sequence 513, Application US/09949016
 ; GENERAL INFORMATION:
 ; APPLICANT: VENTER, J. Craig et al.
 ; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
 ; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
 ; FILE REFERENCE: CL001307
 ; CURRENT APPLICATION NUMBER: US/09/949, 016
 ; CURRENT FILING DATE: 2000-04-14
 ; PRIOR APPLICATION NUMBER: 60/241, 755
 ; PRIOR FILING DATE: 2000-10-20
 ; PRIOR APPLICATION NUMBER: 60/237, 768
 ; PRIOR FILING DATE: 2000-10-03
 ; PRIOR APPLICATION NUMBER: 60/231, 498
 ; PRIOR FILING DATE: 2000-09-08
 ; NUMBER OF SEQ ID NOS: 207012
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 513
 ; LENGTH: 3713
 ; TYPE: DNA
 ; ORGANISM: Human
 ; US-09-949-016-513

Query Match 100.0%; Score 3713; DB 7; Length 3713;
 Best Local Similarity 100.0%; Pred No. 0; Mismatches 0; Indels 0; Gaps 0;
 Matches 3713; Conservative 0;

QY 1 ATTAACAGGCGGTGTGAGAGAGCGAGAGGCGGTGCTCTTTGGACTTTTCA 60
 Db 1 ATTAACAGGCGGTGTGAGAGAGCGAGAGGCGGTGCTCTTTGGACTTTTCA 60
 QY 61 TGCTCGTTTTTTTTCAGATGTGGCTTGGTGGCGCAAGTCCAGACGACTTGA 120
 Db 61 TGCTCGTTTTTTTTCAGATGTGGCTTGGTGGCGCAAGTCCAGACGACTTGA 120
 QY 121 AGCTTACTCTTCTGTGAAGAGGGAAGTATCCCTGTGGAAGCGGTTAACTTGTGAG 180
 Db 121 AGCTTACTCTTCTGTGAAGAGGGAAGTATCCCTGTGGAAGCGGTTAACTTGTGAG 180
 QY 181 GGGGTGCGGAGCGTGAAGTCTTCCCATGCGAGCAATGATGATGAGCTGAGCTGTC 240
 Db 181 GGGGTGCGGAGCGTGAAGTCTTCCCATGCGAGCAATGATGATGAGCTGAGCTGTC 240
 QY 241 AGAGCCGCTGACGATGTCTGAGAGAGGCTCCGAGGGGCGGGAGGTGCGCCACAGAA 300
 Db 241 AGAGCCGCTGACGATGTCTGAGAGAGGCTCCGAGGGGCGGGAGGTGCGCCACAGAA 300
 QY 301 CGGGGTTCTGTAAAGAGAGTGGGAAGTTCATTCGAGAAAGAGAAACCGGAT 360
 Db 301 CGGGGTTCTGTAAAGAGAGTGGGAAGTTCATTCGAGAAAGAGAAACCGGAT 360
 QY 361 GAAAGAGAGCAGGCGCTGAGAGGAGGAGGCGTGTAAAGATGGCGTCTCTCCG 420
 Db 361 GAAAGAGAGCAGGCGCTGAGAGGAGGAGGCGTGTAAAGATGGCGTCTCTCCG 420
 QY 421 GCGGTGCTTCTGCTGGTGTCTTCAATCTTTGATCCGCGGCTCTTCTGATCTTGT 480
 Db 421 GCGGTGCTTCTGCTGGTGTCTTCAATCTTTGATCCGCGGCTCTTCTGATCTTGT 480

QY 481 CTGAGCATCTGGATCAAGAGACCCATGGCATCTGAGGTGCTTATGCTCTGCGATGCC 540
 DB 481 CTGAGCATCTGGATCAAGAGACCCATGGCATCTGAGGTGCTTATGCTCTGCGATGCC 540
 QY 541 CATCAAGAAATAGGCCATTAAGGTGATTCCTCAGAGAGACAACATATAAAGAGAC 600
 DB 541 CATCAAGAAATAGGCCATTAAGGTGATTCCTCAGAGAGACAACATATAAAGAGAC 600
 QY 601 AACCTCATCAGCCTTGAAAGGTGCCATCCAGTTAGGCATTACCAACACTGTGGAGACCT 660
 DB 601 AACCTCATCAGCCTTGAAAGGTGCCATCCAGTTAGGCATTACCAACACTGTGGAGACCT 660
 QY 661 GAGTACCAACCAAGAGCTGATGTCTCATGCAAGATTTCTACGTGTGGAGATATCTT 720
 DB 661 GAGTACCAACCAAGAGCTGATGTCTCATGCAAGATTTCTACGTGTGGAGATATCTT 720
 QY 721 CTTTCCAGTGAAGGAGCAACCTGACCCCTGCTCATCACTACATGACTTCTGTTCAA 780
 DB 721 CTTTCCAGTGAAGGAGCAACCTGACCCCTGCTCATCACTACATGACTTCTGTTCAA 780
 QY 781 GACCTATGCACTGTGTGCTTCCGCTACTTCCGGAGCTATTTGGTATCCGGCCGATGA 840
 DB 781 GACCTATGCACTGTGTGCTTCCGCTACTTCCGGAGCTATTTGGTATCCGGCCGATGA 840
 QY 841 TTACTTGTATTCCTCTGAGAGACCCGCTGATTTGAATCTGTGACTGTGAGCTAGTG 900
 DB 841 TTACTTGTATTCCTCTGAGAGACCCGCTGATTTGAATCTGTGACTGTGAGCTAGTG 900
 QY 901 TTCCCTATTCATGTGTCCAGCGACGATGATTCATTTATTAAGACATGCTCAATMAAG 960
 DB 901 TTCCCTATTCATGTGTCCAGCGACGATGATTCATTTATTAAGACATGCTCAATMAAG 960
 QY 961 GCGGGAATTTCTGAGAGAGCTGCTTCCAGATATCAATGAACCTCAACCAAACTCTG 1020
 DB 961 GCGGGAATTTCTGAGAGAGCTGCTTCCAGATATCAATGAACCTCAACCAAACTCTG 1020
 QY 1021 GACTTGTGCTGCTTAATTTATGAGACTGATCTGTGTGAGAGAGAGGAGCAATTCG 1080
 DB 1021 GACTTGTGCTGCTTAATTTATGAGACTGATCTGTGTGAGAGAGAGGAGCAATTCG 1080
 QY 1081 GATTTGTGTATGATCAATCTTTTACAAAGATCGGTAAATATGATCAATATGACTT 1140
 DB 1081 GATTTGTGTATGATCAATCTTTTACAAAGATCGGTAAATATGATCAATATGACTT 1140
 QY 1141 CAAGGCTCAACCTACAAACGCGGGCTTCCAGAAAGGCGAGAGAAACCTCTTCCAC 1200
 DB 1141 CAAGGCTCAACCTACAAACGCGGGCTTCCAGAAAGGCGAGAGAAACCTCTTCCAC 1200
 QY 1201 AATTAAAGACTGATCTTCTTACAGACATCCCTGATGCTTTTGTGATGCTGACAT 1260
 DB 1201 AATTAAAGACTGATCTTCTTACAGACATCCCTGATGCTTTTGTGATGCTGACAT 1260
 QY 1261 GTACAAACGCTCTGTGAGACCTGTGAGCGGTGACTGTGTGTGCTGAGAGCTTCAGAT 1320
 DB 1261 GTACAAACGCTCTGTGAGACCTGTGAGCGGTGACTGTGTGTGCTGAGAGCTTCAGAT 1320
 QY 1321 AATGATTAAGGCTCTTGTATGTCAATCAATATATGATCAGACCAAGAGGCTT 1380
 DB 1321 AATGATTAAGGCTCTTGTATGTCAATCAATATATGATCAGACCAAGAGGCTT 1380
 QY 1381 AAGCAGTGAACACAGTACTCAGTTGATCTGAGAGACCGGCCCCCAAAAGGCTCTGTA 1440
 DB 1381 AAGCAGTGAACACAGTACTCAGTTGATCTGAGAGACCGGCCCCCAAAAGGCTCTGTA 1440
 QY 1441 TTTCACAGCAGTGAATCATTCAGAGAGAGGCTCGACGGGGTGTGACATGAGACTGA 1500
 DB 1441 TTTCACAGCAGTGAATCATTCAGAGAGAGGCTCGACGGGGTGTGACATGAGACTGA 1500
 QY 1501 TGACCAATATGGGTGGATTCCTGCGCGGGAATGTAAGAGGGAAGGCTTCTGCTTATAT 1560
 DB 1501 TGACCAATATGGGTGGATTCCTGCGCGGGAATGTAAGAGGGAAGGCTTCTGCTTATAT 1560
 QY 1561 TGGCATCATTTGACATTTCTACAGTCTTACAGGTTTGTAAAGTTGAGAGACTTGGAA 1620

DB 1561 TGGCATCATTTGACATTTCTACAGTCTTACAGGTTTGTAAAGTTGAGAGACTTGGAA 1620
 QY 1621 AGCCCTGTATCATGACGAGACACTGTCTCATGATCCGCCAGGCTTTAGCTGAAG 1680
 DB 1621 AGCCCTGTATCATGACGAGACACTGTCTCATGATCCGCCAGGCTTTAGCTGAAG 1680
 QY 1681 GTTCCAGCGCTTATATGTAACACAGTATTTAAGAGATTCCCTTGAACCTTCTCTTC 1740
 DB 1681 GTTCCAGCGCTTATATGTAACACAGTATTTAAGAGATTCCCTTGAACCTTCTCTTC 1740
 QY 1741 CAAAAAGTTTCTGTGCTCATCTTCTCTGCGGAGAGAGCTCCAGTGGCACTCTTG 1800
 DB 1741 CAAAAAGTTTCTGTGCTCATCTTCTCTGCGGAGAGAGCTCCAGTGGCACTCTTG 1800
 QY 1801 CATTACTTACACGCACTGCTCTGTGGGAACAAGGACAAAGTACAAAGGACAG 1860
 DB 1801 CATTACTTACACGCACTGCTCTGTGGGAACAAGGACAAAGTACAAAGGACAG 1860
 QY 1861 AGTGAAGCCAGGGGTTCACTTGTGCTGCTGATGTTTAACTCAGACTCACCTTGG 1920
 DB 1861 AGTGAAGCCAGGGGTTCACTTGTGCTGCTGATGTTTAACTCAGACTCACCTTGG 1920
 QY 1921 GGAATCATGAGGGGCTGCTGCTATTCCTGAACCCAGTTTCTACCTCTAGTTGAAG 1980
 DB 1921 GGAATCATGAGGGGCTGCTGCTATTCCTGAACCCAGTTTCTACCTCTAGTTGAAG 1980
 QY 1981 TTTGCAAAATGCTAATCTACATGTAACAACCTTGAAGGCTTGAAGTTGACAGAGT 2040
 DB 1981 TTTGCAAAATGCTAATCTACATGTAACAACCTTGAAGGCTTGAAGTTGACAGAGT 2040
 QY 2041 CACCATTAAAGCGAAAGCTCAGAAAGACCTGGAACAGATTTGCACTCTGTGATCC 2100
 DB 2041 CACCATTAAAGCGAAAGCTCAGAAAGACCTGGAACAGATTTGCACTCTGTGATCC 2100
 QY 2101 CAAGATGTGAGGCTTTCGCCAGAGATGTAATTTTCTTCTCATTTGCTGTAAGAA 2160
 DB 2101 CAAGATGTGAGGCTTTCGCCAGAGATGTAATTTTCTTCTCATTTGCTGTAAGAA 2160
 QY 2161 GAGTGAATGAAGTGAAGGAGGAGCTGCTCTTCAATCTTCTTCTGAAAGAACTTCTC 2220
 DB 2161 GAGTGAATGAAGTGAAGGAGGAGCTGCTCTTCAATCTTCTTCTGAAAGAACTTCTC 2220
 QY 2221 TCTTCTCTCTCTCATGATGAGGCTTATGCTGCTCAGAGAGTTGAGACCGGACATCC 2280
 DB 2221 TCTTCTCTCTCTCATGATGAGGCTTATGCTGCTCAGAGAGTTGAGACCGGACATCC 2280
 QY 2281 CCTCCACTCCAGAGTTGGGTGTACGATTTTCACTGGGCCAACCTTGTGCTCACTAT 2340
 DB 2281 CCTCCACTCCAGAGTTGGGTGTACGATTTTCACTGGGCCAACCTTGTGCTCACTAT 2340
 QY 2341 TGAATTTTTCAGACCCCAATCTTCAATGCTGGAATGGATTTGCTGACTTGGACCT 2400
 DB 2341 TGAATTTTTCAGACCCCAATCTTCAATGCTGGAATGGATTTGCTGACTTGGACCT 2400
 QY 2401 TTCTTTCCTCTGCTTGAATGAGGCTTATGCTGCTCAGAGAGACTTCTCTCTT 2460
 DB 2401 TTCTTTCCTCTGCTTGAATGAGGCTTATGCTGCTCAGAGAGACTTCTCTCTT 2460
 QY 2461 GGCAATTAATCCCTTACTTATGCTTCTCTGATCCCTGGAAGATATCTCTGATATC 2520
 DB 2461 GGCAATTAATCCCTTACTTATGCTTCTCTGATCCCTGGAAGATATCTCTGATATC 2520
 QY 2521 TCTGTAAGGTTTGGGGGATTAAGGTTTAAACAACCTCCAGACTTCTCTCTT 2580
 DB 2521 TCTGTAAGGTTTGGGGGATTAAGGTTTAAACAACCTCCAGACTTCTCTCTT 2580
 QY 2581 TTTTTCGAAAAAGAAAAAGACACAGACACATTTTCAAGCATTTTCAATGAC 2640
 DB 2581 TTTTTCGAAAAAGAAAAAGACACAGACACATTTTCAAGCATTTTCAATGAC 2640
 QY 2641 ACTCCAGAAAGTTTGAACAAGATGCTTATGTAAGTTCCTCAGAAAGCATAGTGT 2700

Db 2641 ACTCAGAGGTGTTGACAGAGATGCTTATTCGTAGAGTTCCCTCAGAGAGCCATGCTGT 2700
 Qy 2701 TATGAGAGAGAGATGATGATGCTCTGCGCAGAGAGAGCTCCCTTTTAACTCTCTCT 2760
 Db 2701 TATGAGAGAGAGATGATGATGCTCTGCGCAGAGAGAGCTCCCTTTTAACTCTCTCT 2760
 Qy 2761 CTGAGAGATTTCTTAAGGCTGAGAGATGAGAGAGAGAGATGAGAGATGAGAGATGAG 2820
 Db 2761 CTGAGAGATTTCTTAAGGCTGAGAGATGAGAGAGAGAGATGAGAGATGAGAGATGAG 2820
 Qy 2821 CCTTTTGTAAACAG 2880
 Db 2821 CCTTTTGTAAACAG 2880
 Qy 2881 TCCGTGACCTGCGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2940
 Db 2881 TCCGTGACCTGCGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2940
 Qy 2941 TTTGTTTTCTAAATGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATG 3000
 Db 2941 TTTGTTTTCTAAATGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATG 3000
 Qy 3001 TTTTGTGCT 3060
 Db 3001 TTTTGTGCT 3060
 Qy 3061 GGGGACATTCCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 3120
 Db 3061 GGGGACATTCCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 3120
 Qy 3121 TAAATCTAGGAG 3180
 Db 3121 TAAATCTAGGAG 3180
 Qy 3181 CTACCCCT 3240
 Db 3181 CTACCCCT 3240
 Qy 3241 CCGTCTACAGAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3300
 Db 3241 CCGTCTACAGAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3300
 Qy 3301 GGGCTGATCTCAGGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATG 3360
 Db 3301 GGGCTGATCTCAGGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATG 3360
 Qy 3361 CCTGATATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3420
 Db 3361 CCTGATATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3420
 Qy 3421 TTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3480
 Db 3421 TTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3480
 Qy 3481 TTTTCTCATATTTACTATTTATGATGATGATGATGATGATGATGATGATGATGATGAT 3540
 Db 3481 TTTTCTCATATTTACTATTTATGATGATGATGATGATGATGATGATGATGATGATGAT 3540
 Qy 3541 TTTAGGGGTGGAGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3600
 Db 3541 TTTAGGGGTGGAGAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3600
 Qy 3601 AAATTTTATTAAGTGTACTATTTGCTCTCACTTTGATTTGCTCAAGAAATGCGAAATA 3660
 Db 3601 AAATTTTATTAAGTGTACTATTTGCTCTCACTTTGATTTGCTCAAGAAATGCGAAATA 3660
 Qy 3661 CAATATATAAGATATATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3713
 Db 3661 CAATATATAAGATATATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3713

RESULT 3
 US-10-170-235-11868

Sequence 11868, Application US/10170235
 GENERAL INFORMATION:
 APPLICANT: VENTER, J. Craig
 TITLE OF INVENTION: KITS, SUCH AS NUCLEIC ACID ARRAYS, COMPRISING A MAJORITY OF HUMAN
 TITLE OF INVENTION: TRANSCRIPTS, FOR DETECTING EXPRESSION AND OTHER USES THEREOF
 FILE REFERENCE: C1001380
 CURRENT APPLICATION NUMBER: US/10/170,235
 CURRENT FILING DATE: 2003-03-17
 NUMBER OF SEQ ID NOS: 42514
 SEQ ID NO 11868
 LENGTH: 3707
 TYPE: DNA
 ORGANISM: HUMAN
 US-10-170-235-11868
 Query Match 96.3%; Score 3577; DB 8; Length 3707;
 Best Local Similarity 98.6%; Pred. No. 0;
 Matches 3663; Conservative 0; Mismatches 15; Indels 37; Gaps 4;
 Qy 1 APTAAG 60
 Db 28 APTAAG 87
 Qy 61 TGCCCTGTTTTTTTTTTCAGATGAGCTTGTCTGAGGAGAGAGAGAGAGAGAGAGAGAG 120
 Db 88 TGCCCTGTTTTTTTTTTCAGATGAGCTTGTCTGAGGAGAGAGAGAGAGAGAGAGAGAG 147
 Qy 121 AGCTTACTCTTCTGTGAAG 180
 Db 148 AGCTTACTCTTCTGTGAAG 207
 Qy 181 GGGGAG 240
 Db 208 GGGGAG 267
 Qy 241 AG 299
 Db 268 AG 327
 Qy 300 AGCGGGGTTCTGTAAAG 359
 Db 328 AGCGGGGTTCTGTAAAG 387
 Qy 360 TGAAG 419
 Db 388 TGAAG 447
 Qy 420 GGGCGTGTCTTGGTGGAG 479
 Db 448 GGGCGTGTCTTGGTGGAG 507
 Qy 480 CCTGAGATCTGGAATCAAG 539
 Db 508 CCTGAGATCTGGAATCAAG 535
 Qy 540 CCATCAAGAAATAGGAG 599
 Db 536 CCATCAAGAAATAGGAG 595
 Qy 600 CAACCTCATCAGCTTGAAG 659
 Db 596 CAACCTCATCAGCTTGAAG 655
 Qy 660 TGAATCAACCAAG 719
 Db 656 TGAATCAACCAAG 715
 Qy 720 TCTTTCCAG 779
 Db 716 TCTTTCCAG 775
 Qy 780 AGACCTATGACACTGTGCTTCCGCTACTTCCGAGAGAGATTTGGTATCCGAGCCGATG 839

Db	776	AGACCTAAGCACTGTGTGCTTCCGCTACTTCCGGGAAGCTAATTGGTAATCCGGCCCATG	835
Qy	840	ATTACTGTATTCCTCTGTGCAAGTAGCCGCTGATTTGAACCTCTGTAGCTCTGGAGCTAGTG	899
Db	836	ATTACTGTATTCCTCTGTGCAAGTAGCCGCTGATTTGAACCTCTGTAGCTCTGGAGCTAGTG	895
Qy	900	GTTCCCTATTCAATGTATGTATCAGACGAGATGATGATTAATTAAGCAGTCAACATAAAG	959
Db	886	GTTCCCTATTCAATGTATGTATCAGACGAGATGATGATTAATTAAGCAGTCAACATAAAG	955
Qy	960	AGGCGGAATTTCTGCAGAAAGCTGCTTCCAGATPACTACATGAACCTCAACCAAGAACCTTC	1019
Db	956	AGGCGGAATTTCTGCAGAAAGCTGCTTCCAGATPACTACATGAACCTCAACCAAGAACCTTC	1012
Qy	1020	GGACTTTGTGCTCTAAATTCATATGACATGTACATGTGTGACAGGACAGGTGCAAGAACATTC	1079
Db	1013	CACTTTGTGCTCTAAATTCATATGACATGTACATGTGTGACAGGACAGGTGCAAGAACATTC	1072
Qy	1080	GGATTGTGTGTATGAACATCTTTTACCAAGATCGGTAAATAATGCATATCAATAATGACC	1139
Db	1073	GGATTGTGTGTATGAACATCTTTTACCAAGATCGGTAAATAATGCATATCAATAATGACC	1132
Qy	1140	TCAAAAGCTCAACCTTACAAACGGCGGGCTTCCCAAAAGAAGAGAGAACCTCTTCCCA	1199
Db	1133	TCAAAAGCTCAACCTTACAAACGGCGGGCTTCCCAAAAGAAGAGAGAACCTCTTCCCA	1192
Qy	1200	CATTTAAGACCTAGACTCTTACAAAGACATCCCTGATGTCCTTTTGTGATGTCTGACA	1259
Db	1193	CATTTAAGACCTAGACTCTTACAAAGACATCCCTGATGTCCTTTTGTGATGTCTGACA	1252
Qy	1260	TGTACACGCTCTCTGTAAAGACCTTCGACGGGTGATCTGTTTGTGTCTGACAGCTTCAAG	1319
Db	1253	TGTACACACCTCTCTGTAAAGACCTTCGACGGGTGATCTGTTTGTGTCTGACAGCTTCAAG	1312
Qy	1320	TATATGATTAACGCTCTGATGATGTCAATCACTAATATATGATCATATGACACAAGAGACCTT	1379
Db	1313	TATATGATTAACGCTCTGATGATGTCAATCACTAATATATGATCATATGACACAAGAGACCTT	1372
Qy	1380	TAAAGAGTAAACACAGTACTCAGTTGATATCTGAAAGACCGGCCCCCAAAAGGCTCTGT	1439
Db	1373	TAAAGAGTAAACACAGTACTCAGTTGATATCTGAAAGACCGGCCCCCAAAAGGCTCTGT	1432
Qy	1440	ATTCCACAGCAGTGAATCATATCAGGAGAGAGGCTGACGGGGTGTATCCATGAGAGACTG	1499
Db	1433	ATTCCACAGCAGTGAATCATATCAGGAGAGAGGCTGACGGGGTGTATCCATGAGAGACTG	1492
Qy	1500	ATGACCATATGGGTGTGCATCCCTGCCCGAATATGTAAGGGGAAAGGCTTCTGCTTTATA	1559
Db	1493	ATGACCATATGGGTGTGCATCCCTGCCCGAATATGTAAGGGGAAAGGCTTCTGCTTTATA	1552
Qy	1560	TTGGCATCATTTGACATTTCAACATTTTACAGGTTTGTTAAGAGTTGGAGACATCTTTGA	1619
Db	1553	TTGGCATCATTTGACATTTTCAAGCTTTCAGGTTTGTTAAGAGTTGGAGACATCTTTGA	1612
Qy	1620	AAGCCCTGTATATGACGAGAGACTGTCTCAGTGCATTCGCCAGGCTTTCATGCTGAAC	1679
Db	1613	AAGCCCTGTATATGACGAGAGACTGTCTCAGTGCATTCGCCAGGCTTTCATGCTGAAC	1672
Qy	1680	GGTTCCAGCGCTTCAATGTCAACACAGTATTTAAAGAGATTCCTCTGAAGCTTCTCTT	1739
Db	1673	GGTTCCAGCGCTTCAATGTCAACACAGTATTTAAAGAGATTCCTCTGAAGCTTCTCTT	1732
Qy	1740	CCAAAAGTTTGGTCTGGGCTAATCTTTCTGTGGGAGAGAGGCTCCAGTGGCAACTCCT	1799
Db	1733	CCAAAAGTTTGGTCTGGGCTAATCTTTCTGTGGGAGAGAGGCTCCAGTGGCAACTCCT	1792
Qy	1800	GCAATTACTTACAGCCATTCGGTCTCTGGGGAACAAGGCACAAGTACACAAGAGGAG	1859
Db	1793	GCAATTACTTACAGCCATTCGGTCTCTGGGGAACAAGGCACAAGTACACAAGAGGAG	1852
Qy	1860	AAGTGAAGCCAGGGGTTCACTTGTGTGTCTGTATGTTTTTAACTTCAATCACAATCTTTGG	1919
Db	1853	AAGTGAAGCCAGGGGTTCACTTGTGTGTCTGTATGTTTTTAACTTCAATCACAATCTTTGG	1912

QY	1920	AGGAATCAGTGAAGGGCTCGGCTATTTCTGACCCGAGTTTCTCAGCTCAGTGTGAGAGA	1979
Db	1913	AGGAATCAGTGAAGGGCTCGGCTATTTCTGACCCGAGTTTCTCAGCTCAGTGTGAGAGA	1972
QY	1980	CTTGGCAATGCTAACATCAAGTACCAACTTGTGAAAAGTTGGAAGTCAAGTCAAGT	2039
Db	1973	CTTTGGCAATGCTAACATCAAGTACCAACTTGTGAAAAGTTCGAAGTTCAGAGTCAAGT	2032
QY	2040	TCACCCATTAAAGGGGAAGAAGCTCAGAAAGCTGGAAAGAAATCTGTGCACTGTGATC	2099
Db	2033	TCACCCATTAAAGGGGAAGAGCCCTCAGAAAGCTGGAAAGAAATTTGTGCATCTGTGATC	2092
QY	2100	CCAGATGTCAGCCCTTGGCCCCAGCAATGCTGAATTTTCTTACTTGTATCAAAAAA	2159
Db	2093	CCAGATGTCAGCCCTTGGCCCCAGCAATGCTGAATTTTCTTACTTGTATCAAAAAA	2152
QY	2160	GGAGTTAAATGAAGTGAAGGGAGCTGCTCTCCATCTTCTTCTGAAAGAAACCTTCT	2219
Db	2153	GGAGTTAAATGAAGTGAAGGGAGCTGCTCTCCATCTTCTTCTGAAAGAAACCTTCT	2212
QY	2220	CTCCTTCCTCTCCTCATGATGAGGCGCTTAGGCGCTCAGAGATTGAGAGCCGAGATC	2279
Db	2213	CTCCTTCCTCTCCTCATGATGAGGCGCTTAGGCGCTCAGAGATTGAGAGCCGAGATC	2272
QY	2280	CCCTCCACTCCAGAGTGGGTGGTAGAGATTTCAACTGGCCAAACCTTGTCTCCACTA	2339
Db	2273	CCCTCCACTCCAGAGTGGGTGGTAGAGATTTCAACTGGCCAAACCTTGTCTCCACTA	2332
QY	2340	TTGGAATTTTTTCAGAGCCCCCATCTTCCATGCTGGAAATGGGATTTGTGGACCTTGGAGC	2399
Db	2333	TTGGAATTTTTTCAGAGCCCCCATCTTCCATGCTGGAAATGGGATTTGTGGACCTTGGAGC	2392
QY	2400	TTTCTTTCCCTCGCTTTTGACTAGGAGACCGGACTCTTAATTTTCTCAGACAGACTAGC	2459
Db	2393	TTTCTTTCCCTCGCTTTTGACTAGGAGACCGGACTCTTAATTTTCTCAGACAGACTAGC	2452
QY	2460	TGGCACTTAATCCCTACCTTAAGTTCTTTCTCTGTGACTCTGGAAAGATACTCCTGTAAT	2519
Db	2453	TGGCACTTAATCCCTACCTTAAGTTCTTTCTCTGTGACTCTGGAAAGATACTCCTGTAAT	2512
QY	2520	CTCTGTAAAGGTTTTTGGGGGATTAAGGGGTTTAACAACCTCCAGCTTCTTCTTG--TT	2578
Db	2513	CTCTGTAAAGGTTTTTGGGGGATTAAGGGGTTTAACAACCTCCAGCTTCTTCTTCTTG	2572
QY	2579	TTTTTTTTCTGAAAAAAGAAAAAGACAACAGACAACAATTTCAAGCATTTTTCAGATCA	2638
Db	2573	TTTTTTTTCTGAAAAAAGAAAAAGACAACAGACAACAATTTCAAGCATTTTTCAGATCA	2632
QY	2639	GAACTCCGAAGTCTTGAACAAGATGCTTAATGTTGAGTTCCTCAGAAAGAGCATGGTG	2698
Db	2633	GAACTCCGAAGTCTTGAACAAGATGCTTAATGTTGAGTTCCTCAGAAAGAGCATGGTG	2692
QY	2699	TTTATGAAGAGAAAGTATGATTTGTCTGTGCGAAGACAGCTCTCTTTAAACTCTCTCT	2758
Db	2693	TTTATGAAGAGAAAGTATGATTTGTCTGTGCGAAGACAGCTCTCTTTAAACTCTCTCT	2752
QY	2759	CTCTTATGAATTTCTTAAGCGCTGAAGGAATGAAGAAGTGGGAATATGGGTAATCTTTA	2818
Db	2753	CTCTTATGAATTTCTTAAGCGCTGAAGGAATGAAGAAGTGGGAATATGGGTAATCTTTA	2812
QY	2819	TCCCTTTTGTAAAAACGAGAGGACCATGGGCTGGGAGATCATATAGCCCTTCTTAGGAG	2878
Db	2813	TCCCTTTTGTAAAAACGAGAGGACCATGGGCTGGGAGATCATATAGCCCTTCTTAGGAG	2872
QY	2879	AATCCTGTTCACGCGAGGCTAATGTAATTAATTTGCAATTTGAAATATATCTT	2938
Db	2873	AATCCTGTTCACGCGAGGCTAATGTAATTAATTTGCAATTTGAAATATATCTT	2932
QY	2939	GGTGTGTTTTCTAAATGTGAAGACTTAACCAATGAATTTTAAATCTCCTCAGAGAGA	2998
Db	2933	GGTGTGTTTTCTAAATGTGAAGACTTAACCAATGAATTTTAAATCTCCTCAGAGAGA	2992

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QY 2299 TTTTTCCTCTCTCTCAACCTTTTCCAAACAGGTCTCCTGTTTGTGAGGCTAAAGSTAAA 3058
Db 2293 TTTTTCCTCTCTCTCTCACTTTTCCAAAGTTCCTCTGTTTGTGAGGCTAAAGSTAAA 3052
QY 3059 GAGGGGACACTTCTCTCTGTTTAAACAGACAGTCCATATCTGTGAGGCCAGCAATATTTT 3118
Db 3053 GAGGGGACACTTCTCTCTGTTTAAACAGACAGTCCATATCTGTGAGGCCAGCAATATTTT 3112
QY 3119 CTTAACTCAGGGGAGACAGAGATTTCTTGCTTGTGAGGTCTATGCTGTGCCATATG 3178
Db 3113 CTTAACTCAGGGGAGACAGAGATTTCTTGCTTGTGAGGTCTATGCTGTGCCATATG 3172
QY 3179 TCTTACCCCCCTGCTCTCATGACGAGGAATGGGAGCTACATATGCCCCCTCTCT 3238
Db 3173 TCTTACCCCCCTGCTCTCATGACGAGGAATGGGAGCTACATATGCCCCCTCTCT 3232
QY 3239 CCCCCCTTACAAAGATTGTGTTTTCCATCTGATCTTCCACTCTTGTCAAGGGGAAAG 3298
Db 3233 CCCCCCTTACAAAGATTGTGTTTTCCATCTGATCTTCCACTCTTGTCAAGGGGAAAG 3292
QY 3299 GGGGGCTGTATCTCAGGACAGTTGTGTAATTCCTGTTCTATCCCTTCTATCCCAACC 3358
Db 3293 GGGGGCTGTATCTCAGGACAGTTGTGTAATTCCTGTTCTATCCCTTCTATCCCAACC 3352
QY 3359 TGCCCTGATTAATATGTATGACCCATACCCCAATACTGTCTATATTAGACACCCCAACC 3418
Db 3353 TGCCCTGATTAATATGTATGACCCATACCCCAATACTGTCTATATTAGACACCCCAACC 3412
QY 3419 AGTTTCCTGCTGCTCTGCTCTTGTGTCGCAATGTTTTTACAGAGGAAAGAAATTCCTGCTA 3478
Db 3413 AGTTTCCTGCTGCTCTGCTCTTGTGTCGCAATGTTTTTACAGAGGAAAGAAATTCCTGCTA 3472
QY 3479 TTTTTCCTTCAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 3538
Db 3473 TTTTTCCTTCAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 3532
QY 3539 TGTTAGGGGTGGAGAGGAATATTTGAGGAGGGCTGGCTCTTAGGAAAGGAATGGGGA 3598
Db 3533 TGTTAGGGGTGGAGAGGAATATTTGAGGAGGGCTGGCTCTTAGGAAAGGAATGGGGA 3592
QY 3599 GCAACATTTTATTAATGAGTTTACTATTTTGCTCTTATGTTATGTTCAAGAAATGGCAAA 3658
Db 3593 GCAACATTTTATTAATGAGTTTACTATTTTGCTCTTATGTTATGTTCAAGAAATGGCAAA 3652
QY 3659 TACAATATTAAGATATATGATATGTTTATGTAATTAATTAATTAATTAATTAATTAATTA 3713
Db 3653 TACAATATTAAGATATATGATATGTTTATGTAATTAATTAATTAATTAATTAATTAATTA 3707

RESULT 4
US-60-452-680-4962
; Sequence 4962, Application US/60452680
; GENERAL INFORMATION:
; APPLICANT: CARGIL, Michele
; APPLICANT: CARP, Andrew
; TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
; FILE REFERENCE: C1001450
; CURRENT APPLICATION NUMBER: US/60/452,680
; CURRENT FILING DATE: 2003-03-07
; NUMBER OF SEQ ID NOS: 116213
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 4962
; LENGTH: 3707
; TYPE: DNA
; ORGANISM: Homo sapiens
; US-60-452-680-4962

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Query Match	96.3%	Score 3575.8	DB 11	Length 3707
Best Local Similarity	98.5%	Pred. No. 0		
Matches 3660	Conservative 3	Mismatches 15	Indels 37	Gaps 4

Db	28	ATTAAACAGCCGCTGGTTAGGAAGGAGCGAGAAAGGAGCGTTCCCTCTTTGGGACTTTTCA	87
Qy	61	TGCCTCGTTTTTTTTTCAGATGTGGCTGGTCTGGCGCAGAGTCCACAGCCAGCTTA	120
Db	88	TGCCCTCGTTTTTTTTTCAGATGTGGCTGGTCTGGCGCAGAGTCCACAGCCAGCTTA	147
Qy	121	AGCTTACTCTTCTGTGAAGGGGAAAGTATCCCTCTGTGAAAGCGGTTAACTTGTGAG	180
Db	148	AGCTTACTCTTCTGTGAAGGGGAAAGTATCCCTGTGAAAGCGGTTAACTTGTGAG	207
Qy	181	GGGGGCGGGGACGTGAGTCTTCCCATCGACAGGCGCAATGATGTGGCCCTTGAGCTGATCC	240
Db	208	GGGGTGGGGGACGTGAGTCTTCCCATCGACAGGCGCAATGATGTGGCCCTTGAGCTGATCC	267
Qy	241	AGAGCCGGCTCGACGTGTCTGAGGGAGG-CCCGAGGGGGGCGGGGAGGTGGCCACAGA	299
Db	268	AGGAGCCGGCTCGACGTGTCTGAGGGAGGCCCGAGGGGGGCGGGGAGGTGGCCACAGA	327
Qy	300	ACCGGGGTTCTGTAAAGAGACGTTGGGAAAGTTCCATTCCGAAAGAGAGAACCGGAT	359
Db	328	ACCGGGGTTCTGTAAAGAGACGTTGGGAAAGTTCCATTCCGAAAGAGAGAACCGGAT	387
Qy	360	TGAAGAAGACCCAGGCCGCTGAGGGGAGGGGGCTGTAAGATGACGTGCGCTCTCCG	419
Db	388	TGAAGAAGACCCAGGCCGCTGAGGGGAGGGGGCTGTAAGATGACGTGCGCTCTCCG	447
Qy	420	GGCGGTGTCCTGGTCCGCTGTTTTTCATCCCTTGGATCCCGGATCCCTTCTGTACTTGT	479
Db	448	GGCGGTGTCCTGGTCCGCTGTTTTTCATCCCTTGGATCCCGGATCCCTTCTGTACTTGT	507
Qy	480	CCTGAGCATCTGAAATCMAAGAACCCATGAGCATCTGAGGTGCTTATGTCTTGAGCATGC	539
Db	508	CCTC-----AGGTGCTTATGTCTTGAGCATGC	535
Qy	540	CCATCAGAAATAATGAGCCATAGAAAGTGTGATTCCCTCAGAGAAAGCAACTTATAAAGA	599
Db	536	CCATCAGAAATAATGAGCCATAGAAAGTGTGATTCCCTCAGAGAAAGCAACTTATAAAGA	595
Qy	600	CAACCTCATCAGCCTTGAAGAGTGCCATCAGTTAAGGCAATTCACCACTGTGGGGAGCC	659
Db	596	CAACCTCATCAGCCTTGAAGAGTGCCATCAGTTAAGGCAATTCACCACTGTGGGGAGCC	655
Qy	660	TGAGTACCAACCAAGACGCTGATGTCTCATGCAAGATTTCTAGGTGTTGAGATATCT	719
Db	656	TGAGTACCAACCAAGACGCTGATGTCTCATGCAAGATTTCTAGGTGTTGAGATATCT	715
Qy	720	TCTTTCCCATGGAAGGGAAGCACTTGAACCCCTGTCTCATCTACATGACTTGGTTCA	779
Db	716	TCTTTCCCATGGAAGGGAAGCACTTGAACCCCTGTCTCATCTACATGACTTGGTTCA	775
Qy	780	AGACCTTAGACCGTGTGACCTTCGGCTACTCCGGAGCTAATTTGATTCGGGACCGGATG	839
Db	776	AGACCTTAGACCGTGTGACCTTCGGCTACTCCGGAGCTAATTTGATTCGGGACCGGATG	835
Qy	840	ATTACTTGTATTCCTCTCTGCAAGTACCCCTGATTTGAATCTGTAGCTCTGGAGCTAGTG	899
Db	836	ATTACTTGTATTCCTCTCTGCAAGTACCCCTGATTTGAATCTGTAGCTCTGGAGCTAGTG	895
Qy	900	GTTTCCCTATTCTATGTGTCCAGGACGATGAGTTCAATTATAAGCAGTCCAACTAAAG	959
Db	896	GTTTCCCTATTCTATGTGTCCAGGACGATGAGTTCAATTATAAGCAGTCCAACTAAAG	955
Qy	960	AGGGGGAATTTCTGCGAAGGCTCTCCAGGATPACATCATGAACTCTCAACCAAGAACCTC	1019
Db	956	AGGGGGAATTTCTGCGAAGGCTCTCTCCAGGATPACATCATG--GTAAAGGAGAGAGAG	1012
Qy	1020	GGACTTGTGCTGCTAAATTTCTATGACTGTACTGTGTGCGACAGGCTGGCAAGAACTTC	1079
Db	1013	CACTTTGTGCTGCTAAATTTCTATGACTGTACTGTGTGCGACAGGCTGGCAAGAACTTC	1072
Qy	1080	GGATTGTGTGATGAACAATCTTTTACCAAGTCCGTAAAAATGCATATCAATATGACC	1139

Db 1073 GGATTGTGTGATGATGACATCTTTTACCAAGATCGTAAATAATGATATATATAC 1132
Qy 1140 TCAGAGGCTCAACCTTACAAACGAGGCTTCCAGAAAAGAGAGAGAGCTCTTCCCA 1199
Db 1133 TCAGAGGCTCAACCTTACAAACGAGGCTTCCAGAAAAGAGAGAGAGCTCTTCCCA 1192
Qy 1200 CATTAAAGACCTAGACTCTTACAGACATCCCTGATGCTTTTGTGATGCTGACA 1259
Db 1193 CATTAAAGACCTAGACTCTTACAGACATCCCTGATGCTTTTGTGATGCTGACA 1252
Qy 1260 TGTACAGAGCTCTCTGTAAAGACCTGACGCTGACTGTTGTGTGTGAGAGCTTACAGA 1319
Db 1253 TGTACAGAGCTCTCTGTAAAGACCTGACGCTGACTGTTGTGTGTGAGAGCTTACAGA 1312
Qy 1320 TAATGATTAACAGCTCTTGTATGATCATCATATATATATATATATATATATATATAT 1379
Db 1313 TAATGATTAACAGCTCTTGTATGATCATCATATATATATATATATATATATATAT 1372
Qy 1380 TAAGCAGTGAACACAGATCTCATGTTGATCTGAAAGACCGGCCCCCAAAAGGCTCTGT 1439
Db 1373 TAAGCAGTGAACACAGATCTCATGTTGATCTGAAAGACCGGCCCCCAAAAGGCTCTGT 1432
Qy 1440 ATTCAAGCCCATGGAATCCATCCAGGAGAGGCTCGACGAGGCTGTACATGAGACTG 1499
Db 1433 ATTCAAGCCCATGGAATCCATCCAGGAGAGGCTCGACGAGGCTGTACATGAGACTG 1492
Qy 1500 ATGACCATATGAGGTGAGCATCCCTGCCGGAATATGTAAGGAGAAAGGCTTCTGTATTA 1559
Db 1493 ATGACCATATGAGGTGAGCATCCCTGCCGGAATATGTAAGGAGAAAGGCTTCTGTATTA 1552
Qy 1560 TTGCGATCATTTGACATTTCTACAGTCTTACAGGTTGTTTAAAGTTGAGAGCTCTTGA 1619
Db 1553 TTGCGATCATTTGACATTTCTACAGTCTTACAGGTTGTTTAAAGTTGAGAGCTCTTGA 1612
Qy 1620 AAGCCCTGTATACAGAGAGACACTGTCTCAGTGATCGCCAGGCTTCTACGCTGAAAC 1679
Db 1613 AAGCCCTGTATACAGAGAGACACTGTCTCAGTGATCGCCAGGCTTCTACGCTGAAAC 1672
Qy 1680 GGTTCAGGCTTCTCATGTGCAACAGATTTTAAAGAAATTCCTTGAAGCTTCTCTCT 1739
Db 1673 GGTTCAGGCTTCTCATGTGCAACAGATTTTAAAGAAATTCCTTGAAGCTTCTCTCT 1732
Qy 1740 CCAAAAAGTTGGGTCTGCTCATCTTTCTCTGCGAGAGAGGCTCAGTGGCACTCT 1799
Db 1733 CCAAAAAGTTGGGTCTGCTCATCTTTCTCTGCGAGAGGCTCAGTGGCACTCT 1792
Qy 1800 GCATTAATTACAGCATCGCTCTCTGGGAGACAAAGGCAAAAGTGAACAACAAAGGAG 1859
Db 1793 GCATTAATTACAGCATCGCTCTCTGGGAGACAAAGGCAAAAGTGAACAACAAAGGAG 1852
Qy 1860 AAGTGAAGCAGGCGCTTCACTTGTGTCTGTATGTTTAACTTCAAGACTCCACTTTGG 1919
Db 1853 AAGTGAAGCAGGCGCTTCACTTGTGTCTGTATGTTTAACTTCAAGACTCCACTTTGG 1912
Qy 1920 AGGAATTCAGTGAAGGCTCGCTATTCCTGACCCAGTTCTCAAGCTTGAAGTGAAGA 1979
Db 1913 AGGAATTCAGTGAAGGCTCGCTATTCCTGACCCAGTTCTCAAGCTTGAAGTGAAGA 1972
Qy 1980 CTTTGAATTCAGTGAAGGCTCGCTATTCCTGAGAAAGCTTGAAGTGAAGTGAAGA 2039
Db 1973 CTTTGAATTCAGTGAAGGCTCGCTATTCCTGAGAAAGCTTGAAGTGAAGTGAAGA 2032
Qy 2040 TCACCCATTAAAGGAGGCTGAGAGAGCTGAGACAAAGTTCCTGCACTCTGTGATC 2099
Db 2033 TCACCCATTAAAGGAGGCTGAGAGAGCTGAGACAAAGTTCCTGCACTCTGTGATC 2092
Qy 2100 CCAAGATTCAGGCTTGCCTGACCAAAAGCTGAAATTTTCTTCACTTGTGATCAAAAAA 2159
Db 2093 CCAAGATTCAGGCTTGCCTGACCAAAAGCTGAAATTTTCTTCACTTGTGATCAAAAAA 2152
Qy 2160 GAGATGTATATGAAGTGAAGGAGGCTGCTCTCATCTTCTCTGAGAAAGAACTTCT 2219
Db 2153 GAGATGTATATGAAGTGAAGGAGGCTGCTCTCATCTTCTCTGAGAAAGAACTTCT 2212

Qy 2220 CTCCTTCTCTCTCTCATATGATGAGGCTTAAAGGCTTAAAGGCTTAAAGGCTTAAAGGCTT 2279
Db 2213 CTCCTTCTCTCTCTCATATGATGAGGCTTAAAGGCTTAAAGGCTTAAAGGCTTAAAGGCTT 2272
Qy 2280 CCTTCAGTTCAGAGTGTGGGTGATGAGATTTTCACTGAGCCCACTTGTGCTCACTA 2339
Db 2273 CCTTCAGTTCAGAGTGTGGGTGATGAGATTTTCACTGAGCCCACTTGTGCTCACTA 2332
Qy 2340 TTGAATTTTTTTCAGACCCCACTTCTTCAATGCTGAGAAATGAGATTTGCTGAGAGG 2399
Db 2333 TTGAATTTTTTTCAGACCCCACTTCTTCAATGCTGAGAAATGAGATTTGCTGAGAGG 2392
Qy 2400 TTTCTTCCCTGCTGTTGATGATGAGACCGGACTTAAATTTCTCAGAGACAGACTAGC 2459
Db 2393 TTTCTTCCCTGCTGTTGATGATGAGACCGGACTTAAATTTCTCAGAGACAGACTAGC 2452
Qy 2460 TGGCAGATTATCCCTTACCTTATGTTCTTCTGACTCTGAGACCTGAGAAATATCTGTAT 2519
Db 2453 TGGCAGATTATCCCTTACCTTATGTTCTTCTGACTCTGAGACCTGAGAAATATCTGTAT 2512
Qy 2520 CTCTGTAAGGTTTTGGGGGATTAAGGTTTAAACACCTCCAGCTTCTTCTC- 2578
Db 2513 CTCTGTAAGGTTTTGGGGGATTAAGGTTTAAACACCTCCAGCTTCTTCTC- 2572
Qy 2579 TTTTTTTTCTGAAAAAGAAAAAGACACAGACACAAATTTCAAGCAATTTTCAAGTCA 2638
Db 2573 TTTTTTTTCTGAAAAAGAAAAAGACACAGACACAAATTTCAAGCAATTTTCAAGTCA 2632
Qy 2639 GAATCCAGAAATGTTGACAAATGCTTATTTGTAAGTTCTCAGAAAGAGGAGG 2698
Db 2633 GAATCCAGAAATGTTGACAAATGCTTATTTGTAAGTTCTCAGAAAGAGGAGG 2692
Qy 2699 TTTTAAAGAAAGAGATGATGATGCTCTGCAAGAGAGGCTCCTCTTAACTCTCTCT 2758
Db 2693 TTTTAAAGAAAGAGATGATGATGCTCTGCAAGAGAGGCTCCTCTTAACTCTCTCT 2752
Qy 2759 CTCTGATGATTTCTTAAAGCTGAGAGAAATGAAGAGTGGGACATGGGATATCTTAA 2818
Db 2753 CTCTGATGATTTCTTAAAGCTGAGAGAAATGAAGAGTGGGACATGGGATATCTTAA 2812
Qy 2819 TCCCTTTTGTAAACAGAGGAGGAGGCTGAGAGATTAAGGCTTCTCAGAGGAG 2878
Db 2813 TCCCTTTTGTAAACAGAGGAGGAGGCTGAGAGATTAAGGCTTCTCAGAGGAG 2872
Qy 2879 AATCCTGTTACCTGCAAGGCTATGATTAATTAATTTTGAATTTGAATATATCT 2938
Db 2873 AATCCTGTTACCTGCAAGGCTATGATTAATTAATTTTGAATTTGAATATATCT 2932
Qy 2939 GGTGTTTTTTTAAATGTAAGTGAAGCTTACCAATGAATTTTGAATTTTGAATATATCT 2998
Db 2933 GGTGTTTTTTTAAATGTAAGTGAAGCTTACCAATGAATTTTGAATTTTGAATATATCT 2992
Qy 2999 TTTTGTGTCTCTCTCATCTTTTCAAGAGTTCCTGTTGTGGAGGTAAGTAA 3058
Db 2993 TTTTGTGTCTCTCTCATCTTTTCAAGAGTTCCTGTTGTGTGGAGGTAAGTAA 3052
Qy 3059 GAGGGAGACATCTGTCTGTTTAAACAGACAGTCAATCTGTGAGGCGAGCAATATTTT 3118
Db 3053 GAGGGAGACATCTGTCTGTTTAAACAGACAGTCAATCTGTGAGGCGAGCAATATTTT 3112
Qy 3119 CTTAAACTCATGAGGAGACAGCAATTTTGTCTGTTGTGAGGAGTCAATGTCATATG 3178
Db 3113 CTTAAACTCATGAGGAGACAGCAATTTTGTCTGTTGTGAGGAGTCAATGTCATATG 3172
Qy 3179 TCCCTACCCCTGCTCTTCAATGAGGAGGAGTGAATGAGGAGTCAATATGCTCTCT 3238
Db 3173 TCCCTACCCCTGCTCTTCAATGAGGAGGAGTGAATGAGGAGTCAATATGCTCTCTCT 3232
Qy 3239 CCCCCTTACAAAGATGTTGTTTCAATCTGATCTTCACTTGTGAGGAGAAAG 3298
Db 3233 CCCCCTTACAAAGATGTTGTTTCAATCTGATCTTCACTTGTGAGGAGAAAG 3292

OY	3289	GGGCGCTGGTATCTCAGGACGAATGTGAATTCCTGTCAATCCCTCTCATGCCACC	3358
Db	3283	GGGGCTGGTATCTCAGGACGAATGTGAATTCCTGTCAATCCCTCTCATGCCACC	3352
OY	3359	TGCCTTGATAAATGTTAAAGCCCAATCCCMAATPACTGTCTAATTAGAACA	3418
Db	3353	TGCCTTGATAAATGTTAAAGCCCAATCCCMAATPACTGTCTAATTAGAACA	3412
OY	3419	AGTTCTGGCTGCCTGTCTTTGTCGCAATGTTTTTAACAAGAAAGAAATTTCTGCTA	3478
Db	3413	AGTTCTGGCTGCCTGTCTTTGTCGCAATGTTTTTAACAAGAAAGAAATTTCTGCTA	3472
OY	3479	TTTTTTTTCAATAATTAATTAATTAATTAATTAAGGTTTTTAATGAACAAGTTC	3538
Db	3473	TTTTTTTTCAATAATTAATTAATTAATTAATTAAGGTTTTTAATGAACAAGTTC	3532
OY	3539	TGTTAAGGGGTGGAGGGAATATTTGAAGGAGGGCTGGCTTTAAGGAAGAAGATGGGAA	3598
Db	3533	TGTTAAGGGGTGGAGGGAATATTTGAAGGAGGGCTGGCTTTAAGGAAGAAGATGGGAA	3592
OY	3559	GCAACATTTTATTAAGTGTACTATTGCTCTACTTTGTATGTTCAGAANAGCGAAA	3658
Db	3553	GCAACATTTTATTAAGTGTACTATTGCTCTACTTTGTATGTTCAGAANAGCGAAA	3652
OY	3659	TACATATTAAGAAGATATAGGTTTTTAATGTATAAACCTTAAGAGTATTTTA	3713
Db	3653	TACATATTAAGAAGATATAGGTTTTTAATGTATAAACCTTAAGAGTATTTTA	3707

RESULT 5
US-60-453-135-2839

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; Sequence 2839, Application US/60453135
; GENERAL INFORMATION:
; APPLICANT: CARGILL, Michele
; APPLICANT: IAKOUBOVA, Olga
; TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
; TITLE OF INVENTION: MYOCARDIAL INFARCTION, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: C1001456
; CURRENT APPLICATION NUMBER: US/60/453,135
; CURRENT FILING DATE: 2003-03-10
; NUMBER OF SEQ ID NOS: 82762
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2839
; LENGTH: 3707
; TYPE: DNA
; ORGANISM: Homo sapiens
US-60-453-135-2839

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Query Match	96.3%	Score 3575.8;	DB 11;	Length 3707;
Best Local Similarity	98.5%;	Pred. No. 0;		
Matches 3660;	Conservative	3;	Mismatches 15;	Indels 37;
			Gaps 4;	

OY	1	ATTAAACAGCCCGTGGTTAGGAAGAAGGAGAAAGGGGGGCTTCGCTCTCTTGGGACCTTTCA	60
Db	28	ATTAAACAGCCCGTGGTTAGGAAGACGAGAAAGGGCGCTTCGCTCTTGGGACCTTTCA	87
OY	61	TGCCTCGTTTTTTTTCAGATGTGGCTTGCTGTGGGCGCAAGGTCCAGCAGCCAGCTTA	120
Db	88	TGCCTCGTTTTTTTTCAGATGTGGCTTGCTGTGGGCGCAAGGTCCAGCAGCCAGCTTA	147
OY	121	AGCTTACTCTTCTGTGAAGAAGGGGAAAGATATCCCTGTGTGAAGAAGGGGCTTAAACTGTGGAG	180
Db	148	AGCTTACTCTTCTGTGAAGAAGGGGAAAGATATCCCTGTGTGAAGAAGGGGCTTAAACTGTGGAG	207
OY	181	GGGGTGCAGGACGTGAATTCTTCCCATGTGCAGGTCGAATGGTGTGGCTTGAAGCTGTATCC	240
Db	208	GGGGTGCAGGACGTGAATTCTTCCCATGTGCAGGTCGAATGGTGTGGCTTGAAGCTGTATCC	267
OY	241	AGGACCCGAGCTCGACGTGTCTGTAGAGGAAG-CCCGAGAGGGGCGGGAGAGTGGCCCCACAGA	299
Db	268	AGGACCCGAGCTCGACGTGTCTGTAGAGGAAGCCCCGAGAGGGGCGGGAGAGTGTGGCCCCACAGA	327
OY	300	ACGCGGGTTCTGTAAAGAAGACGTTGGGAAGTTGCAATTCGAGAAGAAGAAACCGGAT	359

Db	328	ACGGGGGTTCTGTAAAGAGACGTTGGAGAAATTCGATTCGAGAAAGAGAAACCGGAT	387
Qy	360	TGAAGAGAGCCAGGCCGCTGAGGGGAGGGGCGCTGCTAAGATGGCGTCCGCTTCGCG	419
Db	388	TGAAGAAGAGCCAGGCCGCTGAGGGGAGGGGCGCTGCTAAGATGGCGTCCGCTTCGCG	447
Qy	420	GGCGGTGCTCTTGGTGGGTTTTTCATTCCTTGATTCGGGGGTCCCTTCCTGTACTTGT	479
Db	448	GGCGGTGCTCTTGGTGGGTTTTTCATTCCTTGATTCGGGGGTCCCTTCCTGTACTTGT	507
Qy	480	CCTCAGATCTGGAATCAAGAGCCATGGCATCTGAGGTGGCTTATGCGTCTGGCATGC	539
Db	508	CCTC-----AGGTGCTTATGCTCTGGCATGC	535
Qy	540	CCATCAAGAAAAATAGGCGATAGAGTGTGATTCCTCAGAGAGACAACATATAAAAAGA	599
Db	536	CCATCAAGAAAAATAGGCGATAGAGTGTGATTCCTCAGAGAGACAACATATAAAAAGA	595
Qy	600	CAACCTCATCAGCCTTGAAAGGTGCCATCCTCAGTTAGGCAATACCAACACTGGGGAGCC	659
Db	596	CAACCTCATCAGCCTTGAAAGGTGCCATCAGTTAGGCAATACCAACACTGGGGAGCC	655
Qy	660	TGAGTACCAAAACAAGGCGGATGTCCTCATGTAGAGAAATTCACGCGGTAGAGTACT	719
Db	656	TGAGTACCAAAACAAGGCGGATGTCCTCATGTAGAGAAATTCACGCGGTAGAGTACT	715
Qy	720	TCTTCCCAAGTGAAGGAGAGCAACCTGACCCCTGCTCATCATCAATACATCTTGCCTTCA	779
Db	716	TCTTCCCAAGTGAAGGAGAGCAACCTGACCCCTGCTCATCATCAATACATCTTGCCTTCA	775
Qy	780	AGACCTATGCACTGTGTCCTTCGCTCACTTCGCGGAGCTAATTTGTAATCCGGCCGATG	839
Db	776	AGACCTATGCACTGTGTCCTTCGCTCACTTCGCGGAGCTAATTTGTAATCCGGCCGATG	835
Qy	840	ATTACTGTATATCCCTCTGAGTGAACCCGCTGATTTGAATCTGTATGCTGAGAGCTATG	899
Db	836	ATTACTGTATATCCCTCTGAGTGAACCCGCTGATTTGAATCTGTATGCTGAGAGCTATG	895
Qy	900	GTTCCCTATTCTATATGTGTCAGAGAGAGATGATCTATTTTAAACAGTCCAACTAATAG	959
Db	896	GTTCCCTATTCTATATGTGTCAGAGAGAGATGATCTATTTTAAACAGTCCAACTAATAG	955
Qy	960	AGGGGGAATTTCTGACAGAGCTGCTTCAGGATACTACATGAACCTCAACAGAACCTTC	1019
Db	956	AGGGGGAATTTCTGACAGAGCTGCTTCAGGATACTACATGAACCTCAACAGAACCTTC	1012
Qy	1020	GGAATTGCTGCTTAATTTCTATGACTGTACTGTGTCAGGCGAGGTGGCAAGAACATTC	1079
Db	1013	CACTTTGTGCTGCTTAATTTCTATGACTGTACTGTGTCAGGCGAGGTGGCAAGAACATTC	1072
Qy	1080	GGATTGGTGAAGGAACAATCTTTTCAAGAGTCCGTAAATCCGTAAATATGAATATGAC	1139
Db	1073	GGATTGGTGAAGGAACAATCTTTTCAAGAGTCCGTAAATCCGTAAATATGAATATGAC	1132
Qy	1140	TCAAGGCTCAACCTCAAAACGCGGGCTTCCAGAAAGAGGAGAGAGGCTCTTCCCA	1199
Db	1133	TCAAGGCTCAACCTCAAAACGCGGGCTTCCAGAAAGAGGAGAGAGGCTCTTCCCA	1192
Qy	1200	CATTTAAAGACTTAGACTTTTATCAAGACATCCCTGATGCTCTTTTTTGGATGCTGACA	1259
Db	1193	CATTTAAAGACTTAGACTTTTATCAAGACATCCCTGATGCTCTTTTTTGGATGCTGACA	1252
Qy	1260	TGTACAAAGCGCTCTGTGAACACCTGACAGGAGACGTGTTGGTGTGAGAGCTTCAAGA	1319
Db	1253	TGTACAAAGCGCTCTGTGAACACCTGACAGGAGACGTGTTGGTGTGAGAGCTTCAAGA	1312
Qy	1320	TAAATGATTAACAGGCTCTTGATGTCAATCATATATAGATGATCAAAAGAGAGCCCT	1379
Db	1313	TAAATGATTAACAGGCTCTTGATGTCAATCATATATAGATGATCAAAAGAGAGCCCT	1372
Qy	1380	TAAAGAGTGAACACAGTACTCACTTGTATATCTGAAGACGGGCCCCCAAAAGGCTCTGT	1439

Db	1373	TAAGGAGTGAACACAGATCTCAAGTTGAATCGAAGACCGGCCCCCAAAAGGCTGT	1432
Qy	1440	ATTCCACAGCCATGGATATCATCCAGGGAGAGGCTCGACGGGGTGGTACATAGAGACCTG	1499
Db	1433	ATTCCACAGCCATGGAAATTCATCCAGGGAGAGGCTCGAGGGGTGGTACCAAGAGACCTG	1492
Qy	1500	ATGACCATATGGGTGGCATCCCTGCGCCGGAATAGTAAAGGGAAAGGCTCTGCTTTATA	1559
Db	1493	ATGACCATATGGGTGGCATCCCTGCCCGGAATAGTAAAGGGAAAGGCTCTGCTTTATA	1552
Qy	1560	TTGGCATCATGACATTCTACAGTCTTACAAGTTTGTTAAGAACTTGGACACTCTTGA	1619
Db	1553	TTGGCATCATTGAATTCTTACAGTCTTACAAGTTTGTTAAGAACTTGGACACTCTTGA	1612
Qy	1620	AAGCCCTGGTACATGACGGAGACACTGTCTCAAGTGCATGCCAGGCTCTACGCTGAAC	1679
Db	1613	AAGCCCTGGTACATGACGGAGACACTGTCTCAAGTGCATGCCAGGCTCTACGCTGAAC	1672
Qy	1680	GGTTCCAGCGCTTCATGTGCAACACAGTATTTAAGAAATTCCTTGAAGCTTCTCTT	1739
Db	1673	GGTTCCAGCGCTTCATGTGCAACACAGTATTTAAGAAATTCCTTGAAGCTTCTCTT	1732
Qy	1740	CCAAAAGTTTCGGTCTGGCTCATCTTTCTCTGGGAGAGAGGCTCAAGGCAATCCT	1799
Db	1733	CCAAAAGTTTCGGTCTGGCTCATCTTTCTCTGGGAGAGAGGCTCAAGGCAATCCT	1792
Qy	1800	GCATTACTTACAGACCATCGTCTCTGGGAGACAAAGGCACAAGTGACAAAGGCAAG	1859
Db	1793	GCATTACTTACAGACCATCGTCTCTGGGAGACAAAGGCACAAGTGACAAAGGCAAG	1852
Qy	1860	AAGTGAGCCAGCGCTTACCTTGGTGTCTCTGATGTTTAACTCAGACTCCACTTTGG	1919
Db	1853	AAGTGAGCCAGCGCTTACCTTGGTGTCTCTGATGTTTAACTCAGACTCCACTTTGG	1912
Qy	1920	AGGAATCAGTGAAGGGCTGCGCTATTCCCTGACCCAGATTTCTACGCTTATGAGAGAG	1979
Db	1913	AGGAATCAGTGAAGGGCTGCGCTATTCCCTGACCCAGATTTCTACGCTTATGAGAGAG	1972
Qy	1980	CTTTGCAATGCTPACTTACATCAAGTACAACTTTGGAAAAGCTTGAAGTTTGCAGAGT	2039
Db	1973	CTTTGCAATGCTPACTTACATCAAGTACAACTTTGGAAAAGCTTGAAGTTTGCAGAGT	2032
Qy	2040	TCACCCATTAAAGGCAAAAGCTCAGAAAGCCTGGAAACAAGTTCTGCATCTCTGATC	2099
Db	2033	TCACCCATTAAAGGCAAAAGCTCAGAAAGCCTGGAAACAAGTTCTGCATCTCTGATC	2092
Qy	2100	CCAAGATGACGCCCTTGCACCAGCAATGCTGAATTTCTTCTTACTTGGTCACTAAAAA	2159
Db	2093	CCAAGATGACGCCCTTGCACCAGCAATGCTGAATTTCTTCTTACTTGGTCACTAAAAA	2152
Qy	2160	GGAGTGTAATAGAAAGTGAAGGGAGCTGCTCTCATCTTCTCTGAAAGAAACCTTCT	2219
Db	2153	GGAGTGTAATAGAAAGTGAAGGGAGCTGCTCTCTCATCTTCTCTGAAAGAAACCTTCT	2212
Qy	2220	CTCCTTCTCTTCTCTCAATGAATGGGCTTATGCTGCTCAGAGAATTGAGGACCGGAGCATC	2279
Db	2213	CTCCTTCTCTTCTCTCAATGAATGGGCTTATGCTGCTCAGAGAATTGAGGACCGGAGCATC	2272
Qy	2280	CCCTCCACTCCAGAGTTGGGTGTAACGATTTCACTGGCCCAACCTTTGCTCTCACTA	2339
Db	2273	CCCTCCACTCCAGAGTTGGGTGTAACGATTTTCAACTGGCCCAACCTTTGCTCTCACTA	2332
Qy	2340	TTGAATTTTTTGAACCCCAATCTTCACTGCTGAAATGGGATTGTCTGCACTTGGAGC	2399
Db	2333	TTGAATTTTTTGAACCCCAATCTTCACTGCTGAAATGGGATTGTCTGCACTTGGAGC	2392
Qy	2400	TTTCTTCCCTGCTCTTGACTAGGAACGGACCTTTAATTTCTCTCAGACACTAGC	2459
Db	2393	TTTCTTCCCTGCTCTTGACTAGGAACGGACCTTTAATTTCTCTCAGACACTAGC	2452
Qy	2460	TGGACATTAATCCCAACTTATGTTCTTCTCTGACTCTGGAAGAAATCTCTGTAAT	2519
Db	2453	TGGACATTAATCCCAACTTATGTTCTTCTCTGACTCTGGAAGAAATCTCTGTAAT	2512

Query 3599 GCAACATTTTATTAAGTGTACTATTGCTTACTTGTATGTTGAGAAATGCGAAA 3658
Db 3593 GCAACATTTTATTAAGTGTACTATTGCTTACTTGTATGTTGAGAAATGCGAAA 3652
Query 3659 TACATATTAAGTGTATGTTGTTTAAATGTAATTAATTAATGAGTTATTA 3713
Db 3653 TACATATTAAGTGTATGTTGTTTAAATGTAATTAATTAATGAGTTATTA 3707

RESULT 6
US-60-453-050-2839
Sequence 2839, Application US/60453050
GENERAL INFORMATION:
APPLICANT: CARBIL, Michele
APPLICANT: LURE, May
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
FILE REFERENCE: C1001457
CURRENT APPLICATION NUMBER: US/60/453.050
CURRENT FILING DATE: 2003-03-10
NUMBER OF SEQ ID NOS: 82762
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 2839
LENGTH: 3707
TYPE: DNA
ORGANISM: Homo sapiens
US-60-453-050-2839

Query Match 96.3%; Score 3575.8; DB 11; Length 3707;
Best Local Similarity 98.5%; Pred. No. 0;
Matches 3660; Conservative 3; Mismatches 15; Indels 37; Gaps 4;

Query 1 ATTAACAGGCGGTGTGTAAGAGCGGAGGAGGCGGTGCTTGGAGACTTTCA 60
Db 28 ATTAACAGGCGGTGTGTAAGAGCGGAGGAGGCGGTGCTTGGAGACTTTCA 87
Query 61 TGCCCTGTTTTTTTTCAGATGTGCTGTCTGCGCGCAAGTCCAGACAGCTTA 120
Db 88 TGCCCTGTTTTTTTTCAGATGTGCTGTCTGCGCGCAAGTCCAGACAGCTTA 147
Query 121 AGTTTACTCTTCTGTGAAGAGGAGAAAGTATCCCTGTGAGAAAGCGGTTAA 180
Db 148 AGTTTACTCTTCTGTGAAGAGGAGAAAGTATCCCTGTGAGAAAGCGGTTAA 207
Query 181 GGGGTCGGGAGCGTGAAGTCTTCCCATGCGAGGAGTGTGTCCTTGAAGCTTCC 240
Db 208 GGGGTCGGGAGCGTGAAGTCTTCCCATGCGAGGAGTGTGTCCTTGAAGCTTCC 267
Query 241 AGAGCCCGGCTGACGTGTCTGAGGAGAGG-CCCGAGGGGCGGAGAGTGGCCACAGA 299
Db 268 AGAGCCCGGCTGACGTGTCTGAGGAGAGG-CCCGAGGGGCGGAGAGTGGCCACAGA 327
Query 300 AGCGGGGTTCTGTAAAGAGCGTTGGAAAGTTCGATTCGAGAAAGAGAAACCGGAT 359
Db 328 AGCGGGGTTCTGTAAAGAGCGTTGGAAAGTTCGATTCGAGAAAGAGAAACCGGAT 387
Query 360 TGAAGAAGAGCGAGCGGCTGAGGGGAGGGGCTGTAAGATGGCGCTCTCTCG 419
Db 388 TGAAGAAGAGCGAGCGGCTGAGGGGAGGGGCTGTAAGATGGCGCTCTCTCG 447
Query 420 GGGCGTCTCTCGGTGGGTTTTTTCATCTTGTATCCCGGGTCCCTCTGTATCTGT 479
Db 448 GGGCGTCTCTCGGTGGGTTTTTTCATCTTGTATCCCGGGTCCCTCTGTATCTGT 507
Query 480 CTTGACATCTGGAATCAAGAGACCATAGGCATCTAGAGTGCCTTATGCTGCGATGC 539
Db 508 CTTGACATCTGGAATCAAGAGACCATAGGCATCTAGAGTGCCTTATGCTGCGATGC 535
Query 540 CCATCAAGAAATAGGCGATAGAAAGTGTGATCTCTCAGAGAGAGCAATATAAAGAA 599
Db 536 CCATCAAGAAATAGGCGATAGAAAGTGTGATCTCTCAGAGAGAGCAATATAAAGAA 595
Query 600 CAACCTCATGAGCTTGAAGAGTGCATCCAGTTAGGATTAACCACTGTGGAGGCC 659

Db 596 CAACCTCATGAGCTTGAAGAGTGCATCCAGTTAGGATTAACCACTGTGGAGGCC 655
Query 660 TGAATACCAAAACAGAGCGTATGCTCTCATGCAAGATTTCTAGGTGTGAGATATCT 719
Db 656 TGAATACCAAAACAGAGCGTATGCTCTCATGCAAGATTTCTAGGTGTGAGATATCT 715
Query 720 TCTTTCCAGTGAAGGAGGAGCAACCGTGCATCATTAAGATGACTTGGTTCA 779
Db 716 TCTTTCCAGTGAAGGAGGAGCAACCGTGCATCATTAAGATGACTTGGTTCA 775
Query 780 AGACCTATGACCTGTGTCCTTCCGCTACTTCCGGAGACTATTTGATCCGCGCCGATG 839
Db 776 AGACCTATGACCTGTGTCCTTCCGCTACTTCCGGAGACTATTTGATCCGCGCCGATG 835
Query 840 ATTACTGTATTCCTCTGCGAGTGAAGCGGCTGATTTGAATCTGTAGCTCTGAGTACTG 899
Db 836 ATTACTGTATTCCTCTGCGAGTGAAGCGGCTGATTTGAATCTGTAGCTCTGAGTACTG 895
Query 900 GTTCCCTATCTATGTCGAGCGAGTGAAGTCAATTAAGACAGTCAACATAAG 959
Db 896 GTTCCCTATCTATGTCGAGCGAGTGAAGTCAATTAAGACAGTCAACATAAG 955
Query 960 AGGCGAATTTCTGAGAGGCTGCTCCAGGATACTACATGAACTCAACAGAACCTTC 1019
Db 956 AGGCGAATTTCTGAGAGGCTGCTCCAGGATACTACATGAACTCAACAGAACCTTC 1012
Query 1020 GAACTTGCTGCTTAATTTCTATGACGTGATCTGTGCGAGCGAGTGGCAAGAACATTC 1079
Db 1013 GAACTTGCTGCTTAATTTCTATGACGTGATCTGTGCGAGCGAGTGGCAAGAACATTC 1072
Query 1080 GGATTTGCTGATGAACATCTTTTACCAAGATGGTAAATGCAATTAAGTACC 1139
Db 1073 GGATTTGCTGATGAACATCTTTTACCAAGATGGTAAATGCAATTAAGTACC 1132
Query 1140 TCAAGGCTCAACTACAAACGCGGCGCTTCCAGAAAGAGCGAGAGGCTCTTCCCA 1199
Db 1133 TCAAGGCTCAACTACAAACGCGGCGCTTCCAGAAAGAGCGAGAGGCTCTTCCCA 1192
Query 1200 CATTAAAGACTAGACTTCTTAACAAGACATCCCTGATGCTCTTTTGGATGCTGACA 1259
Db 1193 CATTAAAGACTAGACTTCTTAACAAGACATCCCTGATGCTCTTTTGGATGCTGACA 1252
Query 1260 TGTACAAGCTCTCTGTGAAGCGCTGAGCGGTGATGTTTGGTCTGAGAGCTTCAAGA 1319
Db 1253 TGTACAAGCTCTCTGTGAAGCGCTGAGCGGTGATGTTTGGTCTGAGAGCTTCAAGA 1312
Query 1320 TAATGATTAAGGCTCTTGTATGTCATATCATATATGATCATGCAACAGAGGCCCT 1379
Db 1313 TAATGATTAAGGCTCTTGTATGTCATATCATATATGATCATGCAACAGAGGCCCT 1372
Query 1380 TAAAGATGAAGAACAGTACTCAAGTTGATCTGAAGAGCGGCCCCCAAAAGGCTCTGT 1439
Db 1373 TAAAGATGAAGAACAGTACTCAAGTTGATCTGAAGAGCGGCCCCCAAAAGGCTCTGT 1432
Query 1440 ATTCAAGAGCCATGGAATCCATCAAGGAGAGGCTCCAGCGGGGTGTACCATGAGACTG 1499
Db 1433 ATTCAAGAGCCATGGAATCCATCAAGGAGAGGCTCCAGCGGGGTGTACCATGAGACTG 1492
Query 1500 ATGACATATGGTGGCATCCCTGCCGGAATAGTAAGGGGAAAGGCTTGTGCTTTATA 1559
Db 1493 ATGACATATGGTGGCATCCCTGCCGGAATAGTAAGGGGAAAGGCTTGTGCTTTATA 1552
Query 1560 TTGGCATATTAAGCATTTTACAGTCTTACAGGTTGTTAAGAGTTGAGAGCATCTTGA 1619
Db 1553 TTGGCATATTAAGCATTTTACAGTCTTACAGGTTGTTAAGAGTTGAGAGCATCTTGA 1612
Query 1620 AAGCCCTGTATCAAGAGGAGACATGCTCTCAGTGACATCCGCGAGGCTTCAAGCTGAA 1679
Db 1613 AAGCCCTGTATCAAGAGGAGACATGCTCTCAGTGACATCCGCGAGGCTTCAAGCTGAA 1672
Query 1680 GGTTCAGAGCTTATGCAACAGATTTAAGAGATCCCTTGAAGGCTTCTCCTT 1739

QY 2040 TCACCATTAAGCGAAGCCTCAGAAACCTGGAACAAATTCCTGCATCTGTGATC 2099
 DB 2078 TCACCATTAAGCGAAGCCTCAGAAACCTGGAACAAATTCCTGCATCTGTGATC 2137
 QY 2100 CCAAGATGTCAGCCCTTCCGAGCAATGCTGAATTTTCTTCTAATTGTCATCAAAAA 2159
 DB 2138 CCAAGATGTCAGCCCTTCCGAGCAATGCTGAATTTTCTTCTAATTGTCATCAAAAA 2197
 QY 2160 GAGGTGTAATGAAATGAGGGAGAGCTGCTCCCTCAATCTTCTTCCGAGAAAGAACTTCT 2219
 DB 2198 GAGGTGTAATGAAATGAGGGAGAGCTGCTCCCTCAATCTTCTTCCGAGAAAGAACTTCT 2257
 QY 2220 CTCCTCCCTCTCTCATGAAATGAGGCTTAAGGCTCAGAGAGTGAAGAGCAGCATC 2279
 DB 2258 CTCCTCCCTCTCTCATGAAATGAGGCTTAAGGCTCAGAGAGTGAAGAGCAGCATC 2317
 QY 2280 CCGTCACTCAGAGTGGGTGTAAGCAATTTTCAACTGAGCAACCTTTGCTCACTA 2339
 DB 2318 CCGTCACTCAGAGTGGGTGTAAGCAATTTTCAACTGAGCAACCTTTGCTCACTA 2377
 QY 2340 TTGAATTTTTCAGACCCCAATCTTCAATGCTGGAATGGATGCTGGAATTTGGCAGC 2399
 DB 2378 TTGAATTTTTCAGACCCCAATCTTCAATGCTGGAATGGATGCTGGAATTTGGCAGC 2437
 QY 2400 TTTCTTTCCCTGCTGCTTGAAGTGAAGACCGGACTTTAATTTCTCAGAGACAGTAC 2459
 DB 2438 TTTCTTTCCCTGCTGCTTGAAGTGAAGACCGGACTTTAATTTCTCAGAGACAGTAC 2497
 QY 2460 TGGCATTATTCCTACCTTAAGTCTTCTCTCTGACCTCTGGAAGAAATACCTCTGTAAT 2519
 DB 2498 TGGCATTATTCCTACCTTAAGTCTTCTCTCTGACCTCTGGAAGAAATACCTCTGTAAT 2557
 QY 2520 CTCCTGAAGCTTTTGGGGAGTAAGGGGTTAACACCTCCGAGCTTCTTCTTC-TC 2578
 DB 2558 CTCCTGAAGCTTTTGGGGAGTAAGGGGTTAACACCTCCGAGCTTCTTCTTC-TC 2617
 QY 2579 TTTTCTTGAAGAAAGGAAAGGAAAGCAAGACACAAATTTCAAGCCATTTTCAGATCA 2638
 DB 2618 TTTTCTTGAAGAAAGGAAAGGAAAGCAAGACACAAATTTTCAGATCA 2677
 QY 2639 GAACTCCAGAGTGTGACAAAGTCCCTATTCCTGAGATTCCTCAGAAAGCCATGTGTG 2698
 DB 2678 GAACTCCAGAGTGTGACAAAGTCCCTATTCCTGAGATTCCTCAGAAAGCCATGTGTG 2737
 QY 2699 TTTATGAAGAGAGATGATGCTGCTGCGAGAGAGCTCCTTTTAACTCCTCCT 2758
 DB 2738 TTTATGAAGAGAGATGATGCTGCTGCGAGAGAGCTCCTTTTAACTCCTCCT 2797
 QY 2759 CTCTGATGAATTTCTTAAGCTGAAGATGAAGAGTGGGACATGGGGTAATCTTTA 2818
 DB 2798 CTCTGATGAATTTCTTAAGCTGAAGATGAAGAGTGGGACATGGGGTAATCTTTA 2857
 QY 2819 TCCCTTTTGAAGAAAGGAGGAGCCATGGGCTGGGAGATCATAGCCCTTCTAGGAG 2878
 DB 2858 TCCCTTTTGAAGAAAGGAGGAGCCATGGGCTGGGAGATCATAGCCCTTCTAGGAG 2917
 QY 2879 AATCCGTTACCTGCGAGGCTATAGTAATTAATTAATTTTGAATTAATTAATTC 2938
 DB 2918 AATCCGTTACCTGCGAGGCTATAGTAATTAATTAATTTTGAATTAATTAATTC 2977
 QY 2939 GGTGTGTTTCTAATGTAAGATTAACCAATGAATTTTGAATCTTCCAGAGAGA 2998
 DB 2978 GGTGTGTTTCTAATGTAAGATTAACCAATGAATTTTGAATCTTCCAGAGAGA 3037
 QY 2999 TTTTGTGCTCTTCTCATCTTTTCAAGAGTGTCTCTGTTTGGAGCTAAGGTA 3058
 DB 3038 TTTTGTGCTCTTCTCATCTTTTCAAGAGTGTCTCTGTTTGGAGCTAAGGTA 3097
 QY 3059 GAGGGGACATCTGCTGTTTGAAGAGTCAATCTGAGGCGCAGCAATATTTT 3118
 DB 3098 GAGGGGACATCTGCTGTTTGAAGAGTCAATCTGAGGCGCAG----- 3147
 QY 3119 CTTAACTCATGGGAGACAGCAATTTCTGCTTGGTGAAGTCAATGCTGTGCAATATG 3178

DB 3148 ----- 3147
 QY 3179 TCCTAACCCCTGCTCTTCAATGAGGAAAGTGGAGCTACATATGCCCTCTCT 3238
 DB 3148 ----- 3147
 QY 3239 CCGGCTCAGAGAGTGTGTTTCCATCTGATCCCTCACTCTTGTGAGGGAGAAAG 3298
 DB 3148 ----- 3147
 QY 3299 GGGGCTGTGATCTCAGAGAGATTTGAAATTCCTGTTCTATCCCTTCTATCCACCC 3358
 DB 3148 ----- 3147
 QY 3359 TGCCTGTAATATATGTTAGCCCATACCCCAATTAAGTCTATATTAAGACCCCGAGCC 3418
 DB 3148 ----- 3147
 QY 3419 AGTTCTGCTGCTCTCTTCTGCTGAGCTTTTTCAGAAAGAAAGAAATCTTGCTA 3478
 DB 3180 AGTTCTGCTGCTCTCTTCTGCTGAGCTTTTTCAGAAAGAAAGAAATCTTGCTA 3539
 QY 3479 TTTTCTTCAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 3538
 DB 3240 TTTTCTTCAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 3599
 QY 3539 TGTAGGGGTGGAGGAGATATTGAGGAGGCTGGCTTTAGGAGAAAGAAATGGGAA 3598
 DB 3300 TGTAGGGGTGGAGGAGATATTGAGGAGGCTGGCTTTAGGAGAAAGAAATGGGAA 3559
 QY 3599 GCAACATTTTATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 3658
 DB 3360 GCAACATTTTATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 3419
 QY 3659 TACAATATTAAGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 3713
 DB 3420 TACAATATTAAGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 3474

RESULT 8

US-09-724-676A-21450

; Sequence 21450, Application US/09724676A

; GENERAL INFORMATION:

; APPLICANT: Comugen LTD

; TITLE OF INVENTION: Variants of alternative splicing

; FILE REFERENCE: 129181.4 Comugen

; CURRENT APPLICATION NUMBER: US/09/724,676A

; CURRENT FILING DATE: 2000-11-28

; NUMBER OF SEQ ID NOS: 97222

; SOFTWARE: Patentin version 3.2

; SEQ ID NO 21450

; LENGTH: 3586

; TYPE: DNA

; ORGANISM: Homo sapiens

; US-09-724-676A-21450

Query Match

Best Local Similarity 92.5%; Pred. No. 0;

Matches 3435; Conservative 0; Mismatches 0; Indels 280; Gaps 3;

QY 1 ATTAACAGGCGGTGTTAGAGAGACGAGAAAGGCGCTTGGCTCTTGGGACCTTTCA 60
 DB 38 ATTAACAGGCGGTGTTAGAGAGACGAGAAAGGCGCTTGGCTCTTGGGACCTTTCA 97
 QY 61 TGCCTGCTTTTTCAGATGAGCTTGGTCTGGGCGCAAGGTCCAGACGACGCTTA 120
 DB 98 TGCCTGCTTTTTCAGATGAGCTTGGTCTGGGCGCAAGGTCCAGACGACGCTTA 157
 QY 121 AGCTTACTCTCTGTGAAGAGGAAAGTATCCCTGTGGAAGCGGTTAACTTGTGAG 180
 DB 158 AGCTTACTCTCTGTGAAGAGGAAAGTATCCCTGTGGAAGCGGTTAACTTGTGAG 217

Qy 181 GGGGTGCGGAGCTGATGTTCTTCCCATGCCAGCGAAAGTGTCGCTTGAGCTGCTC 240
Db 218 GGGGTGCGGAGCTGATGTTCTTCCCATGCCAGCGAAAGTGTCGCTTGAGCTGCTC 277
Qy 241 AGGAGCCGGCTCGAGCTGTCGAGGAGG-CCGGAGGGGGGGAGGTGGCCCAAGA 299
Db 278 AGGAGCCGGCTCGAGCTGTCGAGGAGGCGCGAGGGGGGGAGGTGGCCCAAGA 337
Qy 300 AGCGGGTTCGTAAAGAGAGTTGGGAAAGTTGATTCGAGAAAGAGAAAGACCGAT 359
Db 338 AGCGGGTTCGTAAAGAGAGCTTGGAAAGATTCATTCGAGAAAGAGAAAGACCGAT 397
Qy 360 TGAAGAGAGCCAGCCGCTGAGGGGAGGGGGCTCTAAGATGCGCTCGCTCTCG 419
Db 398 TGAAGAGAGCCAGCCGCTGAGGGGAGGGGGCTCTAAGATGCGCTCGCTCTCG 457
Qy 420 GGGCGTCTTCCGTCGGTCTTTCATCTTTCATCCGCGGCTCTTCTGTCGCTTGT 479
Db 458 GGGCGTCTTCCGTCGGTCTTTCATCTTTCATCCGCGGCTCTTCTGTCGCTTGT 517
Qy 480 CCTGAGCATCTGGAATCAAGAGACCATGGCATGAGGTGCTTAAGCTGGCATGC 539
Db 518 CCTGAGCATCTGGAATCAAGAGACCATGGCATGAGGTGCTTAAGCTGGCATGC 577
Qy 540 CCATCAAGAAATAGGCCATAGAGTGTGATTCCTCAGAGAGACAATATATAAGA 599
Db 578 CCATCAAGAAATAGGCCATAGAGTGTGATTCCTCAGAGAGACAATATATAAGA 637
Qy 600 CAACCTCATGAGCTTGAAAGGTGTCATGCAATTAGGCAATACCAACTGTGGAGCC 659
Db 638 CAACCTCATGAGCTTGAAAGGTGTCATGCAATTAGGCAATACCAACTGTGGAGCC 697
Qy 660 TGAGTACCAACAGAGGGTATGTCCTCATAGCAAGATTTCACTGCTTGAAGTACT 719
Db 698 TGAGTACCAACAGAGGGTATGTCCTCATAGCAAGATTTCACTGCTTGAAGTACT 757
Qy 720 TCTTCCAGTGAAGGAGCAACCTGACCTGCTCATCACTAATGACTTTCGTTCA 779
Db 758 TCTTCCAGTGAAGGAGCAACCTGACCTGCTCATCACTAATGACTTTCGTTCA 817
Qy 780 AGACCTATGCACTGTTGCTTCGCTGCTAATTCCGGAGCTAATTGGATCCGGCCGATG 839
Db 818 AGACCTATGCACTGTTGCTTCGCTGCTAATTCCGGAGCTAATTGGATCCGGCCGATG 877
Qy 840 ATTACTGTATTCCTCGCAGTGAAGCGGCTGATGTAATCTCTGATCTGGAAGTATG 899
Db 878 ATTACTGTATTCCTCGCAGTGAAGCGGCTGATGTAATCTCTGATCTGGAAGTATG 937
Qy 900 GTTCCCTATTCATGTCGTCAGCGAGATGATGATTCATTATTAGACATCCAACTAAG 959
Db 938 GTTCCCTATTCATGTCGTCAGCGAGATGATGATTCATTATTAGACATCCAACTAAG 997
Qy 960 AGCGGAAATTTCTGCAAGAGCTGCTTCAGAGATCTAATGAACTCAACAGAACCTTC 1019
Db 998 AGCGGAAATTTCTGCAAGAGCTGCTTCAGAGATCTAATGAACTCAACAGAACCTTC 1057
Qy 1020 GGACTTTCGTCCTAAATTTCTATGATCTGTGTCAGGCAAGGTGGCAAGAACTTC 1079
Db 1058 GGACTTTCGTCCTAAATTTCTATGATCTGTGTCAGGCAAGGTGGCAAGAACTTC 1117
Qy 1080 GGAATGTGTATGATGATCAATCTTTTACCAAGATCGGTAAATATGATCAATATGAC 1139
Db 1118 GGAATGTGTATGATGATCAATCTTTTACCAAGATCGGTAAATATGATCAATATGAC 1177
Qy 1140 TCAAGAGCTCAACCTAACAAGCGGCGGCTTCAGAGAAAGAGAGAGAGCTCTTCCA 1199
Db 1178 TCAAGAGCTCAACCTAACAAGCGGCGGCTTCAGAGAAAGAGAGAGAGCTCTTCCA 1237
Qy 1200 CATTTAAAGACCTGATCTTCAAGAGATCCCTGATGATCTTTTGTGATGCTGACA 1259
Db 1238 CATTTAAAGACCTGATCTTCAAGAGATCCCTGATGATCTTTTGTGATGCTGACA 1297
Qy 1260 TGTAACAAGCTCTCTGTAAAGACCTGACGCTGATCTGTTGGTGTGACAGAGCTTCAAGA 1319

Db 1298 TGTAACAAGCTCTCTGTAAAGACCTGACGCTGATCTGTTGTGCTGAGAGCTTCAAGA 1357
Qy 1320 TAATGATTAAGCTCTTGAATGATATCCATATATATGATGATCAACAAGAGACCT 1379
Db 1358 TAATGATTAAGCTCTTGAATGATATCCATATATATGATGATCAACAAGAGACCT 1417
Qy 1380 TAAGAGTAAACAGATCTCAGTTGATCTGAAGACCGGCGCCCAAAAGGCTCTGT 1439
Db 1418 TAAGAGTAAACAGATCTCAGTTGATCTGAAGACCGGCGCCCAAAAGGCTCTGT 1477
Qy 1440 ATTCAAGCCATGAAATCCATCCAGGAGAGGCTCGACGGGGTGTATCCATGAGACTG 1499
Db 1478 ATTCAAGCCATGAAATCCATCCAGGAGAGGCTCGACGGGGTGTATCCATGAGACTG 1537
Qy 1500 ATGACATATGGGTGTCATCTTCGCGGAAATAGTAAAGGGGAAAGGCTTCTCTTATA 1559
Db 1538 ATGACATATGGGTGTCATCTTCGCGGAAATAGTAAAGGGGAAAGGCTTCTCTTATA 1597
Qy 1560 TTGGCATCATTAATCTTACAGTCTTACAGGTTGTTAAGAGTGGAGACTCTTGA 1619
Db 1598 TTGGCATCATTAATCTTACAGTCTTACAGGTTGTTAAGAGTGGAGACTCTTGA 1657
Qy 1620 AAGCCCTGATCATGACGAGACACTGTCTCAGTGCATCGCCAGGCTTCTACGCTGAC 1679
Db 1658 AAGCCCTGATCATGACGAGACACTGTCTCAGTGCATCGCCAGGCTTCTACGCTGAC 1717
Qy 1680 GGTTCAGCGCTTATGTGCAACAGATTTAAGAAAGTTCCCTTGAAGCTTCTCTT 1739
Db 1718 GGTTCAGCGCTTATGTGCAACAGATTTAAGAAAGTTCCCTTGAAGCTTCTCTT 1777
Qy 1740 CCAAAAAGTTCCGTCGCTCATCTTCTCTCGGAGAGGCTCCAGTGGCAACTCT 1799
Db 1778 CCAAAAAGTTCCGTCGCTCATCTTCTCTCGGAGAGGCTCCAGTGGCAACTCT 1837
Qy 1800 GCATTACTTACCAAGCATCGCTCTCGGGGAAACAAGGCAAGTGAACAACAAGGACG 1859
Db 1838 GCATTACTTACCAAGCATCGCTCTCGGGGAAACAAGGCAAGTGAACAACAAGGACG 1897
Qy 1860 AAGTGAAGCCAGGCGTTCACTTGTGTCGTGATGTTTACTCAAGCTCAACTTTGG 1919
Db 1898 AAGTGAAGCCAGGCGTTCACTTGTGTCGTGATGTTTACTCAAGCTCAACTTTGG 1957
Qy 1920 AGGAATCAGTGAAGGGCTCGCTATTCCTGACCCCAATTCCTCACTGTTGGAAGA 1979
Db 1958 AGGAATCAGTGAAGGGCTCGCTATTCCTGACCCCAATTCCTCACTGTTGGAAGA 2017
Qy 1980 CTTTGCAATGCTAATCAATCAAGTCAACCTTGAAGAGTTGAAGTGCAGAGTCAAGT 2039
Db 2018 CTTTGCAATGCTAATCAATCAAGTCAACCTTGAAGAGTTGAAGTGCAGAGTCAAGT 2077
Qy 2040 TCACCCATTAAGCCCAAGCTCGAAGACCTGGAACAAGATTCGCAATCTGTGATC 2099
Db 2078 TCACCCATTAAGCCCAAGCTCGAAGACCTGGAACAAGATTCGCAATCTGTGATC 2137
Qy 2100 CCAAGATGACGCGCTGCGCCAGCAATGCTGATTTCTTCTCACTGTCATCAAAAAA 2159
Db 2138 CCAAGATGACGCGCTGCGCCAGCAATGCTGATTTCTTCTCACTGTCATCAAAAAA 2197
Qy 2160 GGAATGTATAGAGTGAAGGGAGCTGCTCCATCTTCTTCTGAAAGAAAGCTTCT 2219
Db 2198 GGAATGTATAGAGTGAAGGGAGCTGCTCCATCTTCTTCTGAAAGAAAGCTTCT 2257
Qy 2220 CTCCTTCCTCTCTCTATGAATGGGCTTATGTCCTCAAGAGATTTGAAGACCGAGATC 2279
Db 2258 CTCCTTCCTCTCTCTATGAATGGGCTTATGTCCTCAAGAGATTTGAAGACCGAGATC 2317
Qy 2280 CCTTCACCTCAGAGTGGGTGTAAGGATTTCAATGCGCAACCTTGGCCCTCCACTA 2339
Db 2318 CCTTCACCTCAGAGTGGGTGTAAGGATTTCAATGCGCAACCTTGGCCCTCCACTA 2377
Qy 2340 TTGAATTTTTTCAAGCCCAATCTTCATGCTGGAATGGATTTGCTGAGCTTGGAGC 2399

D	2378	TTGAATTTTTTTCAGACCCCACTTCTT	CATGCTGGAAATGGGATTGCTGGACTTG	GCAGC	2437
Q	2400	TTTTTTCCTCCCTCGTCTTTGACTAGAA	CCGAGCTCTTAATTTCTCAGACAGACTAGC		2459
D	2438	TTTTTTCCTCCCTCGTCTTTGACTAGAA	CCGAGCTCTTAATTTCTCAGACAGACTAGC		2497
Q	2460	TGGCACTTATCCCTACCTAGTTCTTTCT	CTCTAGCTCTGGAAGAAATCTCTGTAT		2519
D	2498	TGGCACTTATCCCTACCTAGTTCTTTCT	CTCTAGCTCTGGAAGAAATCTCTGTAT		2557
Q	2520	CTCTGTAAGGTTTTTGGGGGATAAGG	GTGTTAAACCACTCCAGCTTTCTTTCTTC	-TT	2578
D	2558	CTCTGTAAGGTTTTTGGGGGATAAGG	GTGTTAAACCACTCCAGCTTTCTTTCTTC		2617
Q	2579	TTTTTTTCTGAAAAAAGAAAAAGACA	CAGACAACAATTTCAAGCCATTTTCAGATCA		2638
D	2618	TTTTTTTCTGAAAAAAGAAAAAGACA	CAGACAACAATTTCAAGCCATTTTCAGATCA		2677
Q	2639	GAACCTCGAAGATGTGACAGATGCTAT	TTCTGTAGATTTCCCTCGAAGACCATAGTG		2698
D	2678	GAACCTCGAAGATGTGACAGATGCTAT	TTCTGTAGATTTCCCTCGAAGACCATAGTG		2737
Q	2699	TTTATGAAGAGAGATGATGTATGTCTG	CCAGAGACAGCTCCTTTAACTCCCTCT		2758
D	2738	TTTATGAAGAGAGATGATGTATGTCTG	CCAGAGACAGCTCCTTTAACTCCCTCT		2797
Q	2759	CTCTTGATGAATTTCTTAAAGCTGAG	AATGAGATGAGATGGGACATGGGATCTTTA		2818
D	2798	CTCTTGATGAATTTCTTAAAGCTGAG	AATGAGATGAGATGGGACATGGGATCTTTA		2857
Q	2819	TCCCTTTTGTAAAAACAGAGCAGAC	GCATGGGCTGGGAATCATACCCCTTCAGGAG		2878
D	2858	TCCCTTTTGTAAAAACAGAGCAGAC	GCATGGGCTGGGAATCATACCCCTTCAGGAG		2917
Q	2879	AATCCGTTCACGCGCAGGCTAATGATTA	TTACTATTTTGCATTTGCAATTAATTTCT		2938
D	2918	AATCCGTTCACGCGCAGGCTAATGATTA	TTACTATTTTGCATTTGCAATTAATTTCT		2977
Q	2939	GGTGTGTTTTCTAAATGTGAGACCTTA	CCAAATGAAATTTTAGATCTTCCAGAGAG		2998
D	2978	GGTGTGTTTTCTAAATGTGAGACCTTA	CCAAATGAAATTTTAGATCTTCCAGAGAG		3037
Q	2999	TTTTTTTGTCTCTCATCTTTTCCAA	CAGAGTCTCCGTTTGGAGCTAAGGTA		3058
D	3038	TTTTTTTGTCTCTCATCTTTTCCAA	CAGAGTCTCTCTTTTGGAGCTAAGGTA		3097
Q	3059	GAGGGACACTTCTGTCTGTTTAA	CAGACAGTCCATATCTGTAGGCGACAAATATTTT		3118
D	3098	GAGGGACACTTCTGTCTGTTTAA	CAGACAGTCCATATCTGTAGGCGCG--		3147
Q	3119	CTTAAACTCATGGGAGACAGCAGATTT	CTTGCTGTGAGTCAATTTGCTGTGCCATATG		3178
D	3148	-----	-----		3147
Q	3179	TCCTACCCCTGTCTTCATGACGAG	AAGTTGMAATGGGGCTACATATGCCCTCTCT		3238
D	3148	-----	-----		3147
Q	3239	CCCCGTCTACAGAGTTTGCGTTT	CCATCTGATCTTCCACTTTGTCAAGGGAGAG		3298
D	3148	-----	-----		3147
Q	3299	GGGGCTGTGATCTCAGGACGATTT	GAAATCTGTGTTATCCCTCTATCCACCC		3358
D	3148	-----	-----		3147
Q	3359	TGCTTGATATATGTTAGCCCATAC	CCCAATAACTGTCTATATTTAGACACCCCGAC		3418
D	3148	-----	-----		3179
Q	3419	AGTTTCTGCGCTGCTCTTTTCTG	CCCATGTTTTTTTCAAGAGAAAGAAATCTTGCTA		3478
D	3180	AGTTTCTGCGCTGCTCTTTTCTG	CCCATGTTTTTTTCAAGAGAAAGAAATCTTGCTA		3299

Qy	3479	TTTTTTTCATTAATTACATATTAAAGATATTTAAAGGTTTATTTAAGACAGAGTTC	3558
Db	3240	TTTTTTTTTATTAATTACATATTATGAATGTTATTTAAAGGTTTATTTAAGACAGAGTTC	3239
Qy	3539	TGTTAGGGGTGGAGGGAATATTTGAGGAGGGCTGGCTTTAGGAAAGAAATGGGAA	3598
Db	3300	TGTTAGGGGTGGAGGGAATATTTGAGGAGGGCTGGCTTTAGGAAAGAAATGGGAA	3358
Qy	3599	GCAACATTTTATTTAAGTGTACTATTTGCTCTACTTTGTATTTGTCAGAAATGGCAA	3658
Db	3360	GCAACATTTTATTTAAGTGTACTATTTGCTCTACTTTGTATTTGTCAGAAATGGCAA	3418
Qy	3659	TACAAATTAAGAGATATATGGTTTAAATGTATTAACCTTAAAGAGTATTTTA	3713
Db	3420	TACAAATTAAGAGATATATGGTTTAAATGTATTAACCTTAAAGAGTATTTTA	3474

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RESULT 9
US-09-724-676-21453
; Sequence 21453; Application US/09724676
; GENERAL INFORMATION:
; APPLICANT: CompuGen LTD
; TITLE OR INVENTION: Variants of alternative splicing
; FILE REFERENCE: 129181.4 CompuGen
; CURRENT APPLICATION NUMBER: US/09/724.676
; CURRENT FILING DATE: 2000-11-28
; NUMBER OF SEQ. ID NOS: 97222
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 21453
; LENGTH: 3622
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-724-676-21453

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Query Match	82.9%	Score 3079	DB 6	Length 3622
Best Local Similarity	91.6%	Pred. No. 0		
Matches 3435	Conservative	0	Mismatches	0
			Indels	316
			Gaps	4

QY 1 ATTAAACAGGCGCGTGGTAAAGGAAGACGGAAGAGAGGAGGAGTGGCTCTCTCTGGAACCTTTTCA 80
 Db 38 ATTAAACAGGCGCGTGGTAAAGGAAGACGGAAGAGAGGAGGAGTGGCTCTCTCTGGAACCTTTTCA 97
 QY 61 TGGCCTCGTTTTTTTTTTCAGATGTGGCTTGGCTGGGCGCAAGGTCCAGAGCCACCTTA 120
 Db 98 TGGCTCGTTTTTTTTTTCAGATGTGGCTTGGCTGGGCGCAAGGTCCAGAGCCACCTTA 157
 QY 121 AGCTTAACCTCTCTGTGAAGAGGGGAAAGTATCCCTCTGTGAAGCGGTAAACTTTGTGAG 180
 Db 158 AGCTTAACCTCTCTGTGAAGAGGGGAAAGTATCCCTCTGTGAAGACGGTTAAACTTTGTGAG 217
 QY 181 GGGGAGCGGGAACGTAGATTCTTCCCATGCGAAGCGAATGTGTGGCTTGAAGCTGATCC 240
 Db 218 GGGGAGCGGGAACGTAGATTCTTCCCATGCGAAGCGAATGTGTGGCTTGAAGCTGATCC 277
 QY 241 AGGAGCCGAGCTGACGTGTCTGAAGGAGG-CCGGAAGGGGCGGGGAGGTGGCCACAGA 289
 Db 278 AGGAGCCGAGCTGACGTGTCTGAAGGAGGCGCCGGAAGGGGCGGGGAGGTGGCCACAGA 357
 QY 300 AGCGGGGTTCTGTAAAGAGAAGTTGGGAAAGATTGATTCGAGAAAGAGAAGAACCGAT 359
 Db 338 AGCGGGGTTCTGTAAAGAGAAGTTGGGAAAGATTGATTCGAGAAAGAGAAGAACCGAT 397
 QY 360 TGAAGAAGACGAGCGCGCTGAAGGGGAGGGGGCTGCTAAGATGGCTCGGCTCTCTCCG 419
 Db 398 TGAAGAAGACGAGCGCGCTGAAGGGGAGGGGGCTGCTAAGATGGCTCGGCTCTCTCCG 457
 QY 420 GGGCGGCGCTTGGGCGGTTTTTCATCTTTGAATCCGCGAGTCCCTTCCTGTACCTTGT 479
 Db 458 GGGCGGCGCTTGGGCGGTTTTTCATCTTTGAATCCGCGAGTCCCTTCCTGTACCTTGT 517
 QY 480 CCTGACGATCTGGAATCAAGAGCCCATGCGATCTGA----- 516

D	518	CCTCAGCATCTGAAATCAAGAGACCAATGGCATCTGAGGCTTTGGAAAGCTAGACAGATT	577
Q	517	-----GCTCCCTTAATGCTCTTGGCATGCTCCATCAAGAAATAGGCCCTAGAA	563
D	578	CTTACATCTCATTTGGTGTGCTTAATGCTCTTGGCATGCTCCATCAAGAAATAGGCCCTAGAA	637
Q	564	GTGTGTAATTCCTCAGAGAGAGCAACAATAAAGAACACTCATACGCTTGAAGAGTG	623
D	638	GTGTGTAATTCCTCAGAGAGAGCAACAATAAAGAACACTCATACGCTTGAAGAGTG	697
Q	624	CCATCCAGTTAGGCAATTACCACTGCTGGGAGCCCTGAGTACAAACAGAGCTGATG	683
D	698	CCATCCAGTTAGGCAATTACCACTGCTGGGAGCCCTGAGTACAAACAGAGCTGATG	757
Q	684	TCTCTATGCAAGATTCTACGTGGTGAAGATCTCTTTCCAGTGAAGGAGCAAC	743
D	758	TCTCTATGCAAGATTCTACGTGGTGAAGATCTCTTTCCAGTGAAGGAGCAAC	817
Q	744	TGACCCCTGCTCACTACATATGACTTTTGGTTCAAGACTATGCACTGTGCTTCC	803
D	818	TGACCCCTGCTCACTACATATGACTTTTGGTTCAAGACTATGCACTGTGCTTCC	877
Q	804	GCTACTTCCGGAGCTAATTTGGTATCCGGCCGAGTAATCTGTATCCCTCTGCAATG	863
D	878	GCTACTTCCGGAGCTAATTTGGTATCCGGCCGAGTAATCTGTATCCCTCTGCAATG	937
Q	864	AGCCGCTGATTGAACTCTGTAGCTTGGAGCTAGTGATCCCTATGTATGTGTCAAG	923
D	938	AGCCGCTGATTGAACTCTGTAGCTTGGAGCTAGTGATCCCTATGTATGTGTCAAG	997
Q	924	ACGATGAGTTCAATTATTAAGCAGTCCACATTAAGGCGGAATTTCTGCAGAAAGCTGC	983
D	998	ACGATGAGTTCAATTATTAAGCAGTCCACATTAAGGCGGAATTTCTGCAGAAAGCTGC	1057
Q	984	TTCCAGGATATACATAGAACCTCAACAGAACCTCTGGACTTTGCTGCTAAATCTATG	1043
D	1058	TTCCAGGATATACATAGAACCTCAACAGAACCTCTGGACTTTGCTGCTAAATCTATG	1117
Q	1044	GACTGTACTGTGTGCAGAGCAGTGTGCAGAAACTTCGATGTGTGTATGAAACAATCTTT	1103
D	1118	GACTGTACTGTGTGCAGAGCAGTGTGCAGAAACTTCGATGTGTGTATGAAACAATCTTT	1177
Q	1104	TACCAAGATCGGTAAATAATGATATCAATATATGACTCAAGGCTCAACCTACAAACGGC	1163
D	1178	TACCAAGATCGGTAAATAATGATATCAATATATGACTCAAGGCTCAACCTACAAACGGC	1237
Q	1164	GGGCTTCCAGAAAGAGCAGAGAGAGCTTCCCAATTTAAAGCCTAGACTTCTAC	1223
D	1238	GGGCTTCCAGAAAGAGCAGAGAGAGCTTCCCAATTTAAAGCCTAGACTTCTAC	1297
Q	1224	AAGCAATCCCTGATGATCTTTTGTGGAATCTCAATGTACAACGCTCTGTAGAACCC	1283
D	1298	AAGCAATCCCTGATGATCTTTTGTGGAATCTCAATGTACAACGCTCTGTAGAACCC	1357
Q	1284	TGCAGCCTGACTGTTTGTGTCTGCAAGCTTCAAGATTAATGGAATTAACAGCTCTTGATGT	1343
D	1358	TGCAGCCTGACTGTTTGTGTCTGCAAGCTTCAAGATTAATGGAATTAACAGCTCTTGATGT	1417
Q	1344	CAATCCATATATATGATCAATGCAACAAGAGGCCCTTAAGCAGTGAACAAGATCTGAG	1403
D	1418	CAATCCATATATATGATCAATGCAACAAGAGGCCCTTAAGCAGTGAACAAGATCTGAG	1477
Q	1404	TTGATATCTGAAAGACGGGCCCCCAAAAGGCTCTGATTTCAAGCAAGCATGGAATCATCC	1463
D	1478	TTGATATCTGAAAGACGGGCCCCCAAAAGGCTCTGATTTCAAGCAAGCATGGAATCATCC	1537
Q	1464	AGGAGAGGCTCGACGGGCTGTGTAACAATGAGACTGATGACATATAGGTGGCATCTCGG	1523
D	1538	AGGAGAGGCTCGACGGGCTGTGTAACAATGAGACTGATGACATATAGGTGGCATCTCGG	1597
Q	1524	CCCGGAATAATGAAGGGGAAAGGCTTCTGCTTATATATGGCATCATTTCAACGT	1583
D	1598	CCCGGAATAATGAAGGGGAAAGGCTTCTGCTTATATATGGCATCATTTCAACGT	1657

Qy	1584	CTTACAGCTTGTGTAAGAAAGTTGAGACA	CTCTTGGAAAAAGCCCTGGTACATACGGAGACA	1643
Db	1658	CTTACAGCTTGTGTAAGAAAGTTGAGACA	CTCTTGGAAAAAGCCCTGGTACATACGGAGACA	1717
Qy	1644	CTGTCTCAGTGACATCGGCCCAAGCTTCTACGCTGAA	CGGTCCAGGCTTCAATGTGCAACA	1703
Db	1718	CTGTCTCAGTGACATCGGCCCAAGCTTCTACGCTGAA	CGGTCCAGGCTTCAATGTGCAACA	1777
Qy	1704	CAGATTTAAGAAAGATTTCCCTGGAAGCCCTTCCTCC	AAAAAGTTGGGTCTGGCTCAT	1763
Db	1778	CAGATTTAAGAAAGATTTCCCTGGAAGCCCTTCCTCC	AAAAAGTTGGGTCTGGCTCAT	1837
Qy	1764	CTTCTCTCGGCAAGAGGCTCCAGTGAGCAATCCTGCA	TATCTTACAGGCATCGGCT	1823
Db	1838	CTTCTCTCGGCAAGAGGCTCCAGTGAGCAATCCTGCA	TATCTTACAGGCATCGGCT	1897
Qy	1824	CTGGGGAACAACAAGGACAAGTGACAACAAGGACAG	AGGCTTCAACCTTG	1883
Db	1898	CTGGGGAACAACAAGGACAAGTGACAACAAGGACAG	AGGCTTCAACCTTG	1957
Qy	1884	GTGTCCTGATGTGTTTACCTCAGACCTCCCTTGGAG	GAATCATGATGAGGCTCGCCTA	1943
Db	1958	GTGTCCTGATGTGTTTACCTCAGACCTCCCTTGGAG	GAATCATGATGAGGCTCGCCTA	2017
Qy	1944	TTCCCTGACCCCAATTTCTCACTCTAGTTGAGAGA	CTTTGCAATGTCTAACAAGTA	2003
Db	2018	TTCCCTGACCCCAATTTCTCACTCTAGTTGAGAGA	CTTTGCAATGTCTAACAAGTA	2077
Qy	2004	CAACCTTGGAAAAAGCTTGAAGTTGCAGAGTCAAG	TTCACCCATTAAAGCGAAAGCTCA	2063
Db	2078	CAACCTTGGAAAAAGCTTGAAGTTGCAGAGTCAAG	TTCACCCATTAAAGCGAAAGCTCA	2137
Qy	2064	GAAGACCTGGAAACAAGATTTGCGCACTCTGAGAT	CCCAAGATGCAAGCTTGAGCCAG	2123
Db	2138	GAAGACCTGGAAACAAGATTTGCGCACTCTGAGAT	CCCAAGATGCAAGCTTGAGCCAG	2197
Qy	2124	CAATGCTGAATTTTCTTCTTACTTGGTCAATCAAAA	AGATGTAATGAGTGAAGGGAG	2183
Db	2198	CAATGCTGAATTTTCTTCTTACTTGGTCAATCAAAA	AGATGTAATGAGTGAAGGGAG	2257
Qy	2114	CTGTCTCTCATCTCTCTCTCTGAAAGAAACCTCTC	TCCTCCCTCTCAATGAATGG	2243
Db	2258	CTGTCTCTCATCTCTCTCTCTCTGAAAGAAACCTCTC	TCCTCCCTCTCAATGAATGG	2317
Qy	2244	GCTTATGTGCTCAGAGAAGTTGAGAGACCGACAGAT	CCCCCTCCACTCCAGAGTGGGTGT	2303
Db	2318	GCTTATGTGCTCAGAGAAGTTGAGAGACCGACAGAT	CCCCCTCCACTCCAGAGTGGGTGT	2377
Qy	2304	ACGGATTTTCAACTGGGCAACCTTTGCTCCACTAT	TGAAATTTTTTTCAGACCCCAAT	2363
Db	2378	ACGGATTTTCAACTGGGCAACCTTTGCTCCACTAT	TGAAATTTTTTTCAGACCCCAAT	2437
Qy	2364	CTTCAATCTGAAATGGAGATGTGCTGAGCTTTCCT	CCGCTGCTTTCAGACTA	2423
Db	2438	CTTCAATCTGAAATGGAGATGTGCTGAGCTTTCCT	CCGCTGCTTTCAGACTA	2497
Qy	2424	GGAACCGGACTCTTAATTTCTTCAGGACAGACTAG	CTGCACTTATCTCTTACCTT	2483
Db	2498	GGAACCGGACTCTTAATTTCTTCAGGACAGACTAG	CTGCACTTATCTCTTACCTT	2557
Qy	2484	CTTCTCTCTGACCTCCGGAAGAAATCTCTGTAAAT	CTCTGTAAAGGTTTTTGGGGATA	2543
Db	2558	CTTCTCTCTGACCTCCGGAAGAAATCTCTGTAAAT	CTCTGTAAAGGTTTTTGGGGATA	2617
Qy	2544	AGGGTGTTTAACCACTCCAGGCTTTCCTTCCTC	-TTTTTTTTTCTGAAAAAGAAAA	2602
Db	2618	AGGGTGTTTAACCACTCCAGGCTTTCCTTCCTTCCTC	-TTTTTTTTTCTGAAAAAGAAAA	2677
Qy	2603	GCACACAGCAACAATTTCAAGCAATTTCAATCAAGA	ATCCAGAAATGTGTGCAAGAT	2662
Db	2678	GCACACAGCAACAATTTCAAGCAATTTCAATCAAGA	ATCCAGAAATGTGTGCAAGAT	2737

Qy 744 TGACCCCTGCTCATCACTACATGACTTTCGTTTCAGACCTATGCACTGTGCTTCC 803
Db 818 TGACCCCTGCTCATCACTACATGACTTTCGTTTCAGACCTATGCACTGTGCTTCC 877
Qy 804 GCTACTTCCGGAGCTATTTGGTATCCGGCCCGATGATTTACTTGTATTCCTCTGCACTG 863
Db 878 GCTACTTCCGGAGCTATTTGGTATCCGGCCCGATGATTTACTTGTATTCCTCTGCACTG 937
Qy 864 AGCGCTGATTTGAATCTGTAGCTCTGAGCTGAGTGGTTCCTATTTCTATGTGTCAACG 923
Db 938 AGCGCTGATTTGAATCTGTAGCTCTGAGCTGAGTGGTTCCTATTTCTATGTGTCAACG 997
Qy 924 AGCATGATCTATTTATTAAGACATGCTCAACATTAAGAGCGGAAATTTGCGAGAGCTGC 983
Db 998 AGCATGATCTATTTATTAAGACATGCTCAACATTAAGAGCGGAAATTTGCGAGAGCTGC 1057
Qy 984 TTCCAGATCTACATGAACTCAACGAAACCTTGGACTTTGCTGCTTAATTTCTATG 1043
Db 1058 TTCCAGATCTACATGAACTCAACGAAACCTTGGACTTTGCTGCTTAATTTCTATG 1117
Qy 1044 GACTGTACTGTGTGAGGAGGCTGAGCAAACTTCGATGTGTGTGATGAACTTTT 1103
Db 1118 GACTGTACTGTGTGAGGAGGCTGAGCAAACTTCGATGTGTGTGATGAACTTTT 1177
Qy 1104 TACCAAGATCGGTAAAAATGATATCAATATGACTCAAGGCTCAACTTCAAAACGCG 1163
Db 1178 TACCAAGATCGGTAAAAATGATATCAATATGACTCAAGGCTCAACTTCAAAACGCG 1237
Qy 1164 GGGCTTCCGAGAAAGAGGAGAAAGCTTTCCCACTTTAAGACCTTGAACCTTTTAC 1223
Db 1238 GGGCTTCCGAGAAAGAGGAGAAAGCTTTCCCACTTTAAGACCTTGAACCTTTTAC 1297
Qy 1224 AAGCATCCCTGATGCTTTTGTGATGCTGATGATGATGATGATGATGATGATGATGATG 1283
Db 1298 AAGCATCCCTGATGCTTTTGTGATGCTGATGATGATGATGATGATGATGATGATGATG 1357
Qy 1284 TGCAAGCTGATGCTTTGTGCTGAGAGCTTCAAGATATGATGATGATGATGATGATG 1343
Db 1358 TGCAAGCTGATGCTTTGTGCTGAGAGCTTCAAGATATGATGATGATGATGATGATG 1417
Qy 1344 CAATTCATATATATGATATGATGATGATGATGATGATGATGATGATGATGATGATG 1403
Db 1418 CAATTCATATATATGATATGATGATGATGATGATGATGATGATGATGATGATGATG 1477
Qy 1404 TTGATATCTGAGAAAGCGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1463
Db 1478 TTGATATCTGAGAAAGCGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1537
Qy 1464 AGGAGAGGCTGAGCGGGGTGGTACATGAGATGATGATGATGATGATGATGATGATG 1523
Db 1538 AGGAGAGGCTGAGCGGGGTGGTACATGAGATGATGATGATGATGATGATGATGATG 1597
Qy 1524 CCCGAAATGATTAAGAGGAAAGGCTTGTGCTTATATTTGATGATGATGATGATGATG 1583
Db 1598 CCCGAAATGATTAAGAGGAAAGGCTTGTGCTTATATTTGATGATGATGATGATGATG 1657
Qy 1584 CTTACAGGTTTGTAAAGATTTGAGAGCTCTGTTGAAGCCCTGTGATGATGATGATGATG 1643
Db 1658 CTTACAGGTTTGTAAAGATTTGAGAGCTCTGTTGAAGCCCTGTGATGATGATGATGATG 1717
Qy 1644 CTGTCTCAGTCACTGCGGAGGCTTCTAGCTGAGAGGCTTCAAGGCTTCAAGTGCACA 1703
Db 1718 CTGTCTCAGTCACTGCGGAGGCTTCTAGCTGAGAGGCTTCAAGGCTTCAAGTGCACA 1777
Qy 1704 CAGTATTTAAGAAAGTTCCTTTGAAGCTTCTCTTCCAAAAAGTTTGGCTGCTCAT 1763
Db 1778 CAGTATTTAAGAAAGTTCCTTTGAAGCTTCTCTTCCAAAAAGTTTGGCTGCTCAT 1837
Qy 1764 CTTTCTCTCGGAGAGGAGGCTTCAAGTGCACACTCTGATGATGATGATGATGATGATG 1823
Db 1838 CTTTCTCTCGGAGAGGAGGCTTCAAGTGCACACTCTGATGATGATGATGATGATGATG 1897
Qy 1824 CTGGGAAACAGAGGCAAGTGCACAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1883

Db 1898 CTGGGAAACAGAGGCAAGTGCACAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 1957
Qy 1884 GTGCTCTGATGTTTATCTACAGACTCCACTTTGAGAGAAATGATGAGGCTGCTCA 1943
Db 1958 GTGCTCTGATGTTTATCTACAGACTCCACTTTGAGAGAAATGATGAGGCTGCTCA 2017
Qy 1944 TTCCGAGCCCGAGTTTCACTCTAGTTGAGAGACTTTGCAATGCTAACAGTA 2003
Db 2018 TTCCGAGCCCGAGTTTCACTCTAGTTGAGAGACTTTGCAATGCTAACAGTA 2077
Qy 2004 CAACCTTGAAAAGCTTGAAGTTGCAAGTGCAGAGTTCAACCATTAAGCGCAAGGCTCA 2063
Db 2078 CAACCTTGAAAAGCTTGAAGTTGCAAGTGCAGAGTTCAACCATTAAGCGCAAGGCTCA 2137
Qy 2064 GAAAGCTGGAACAAAGTTCGCACTCTGTATGCCAAGATGCAAGCTTGGCCGAG 2123
Db 2138 GAAAGCTGGAACAAAGTTCGCACTCTGTATGCCAAGATGCAAGCTTGGCCGAG 2197
Qy 2124 CAATGCTGAATTTTCTTACTTGTGATCAAAAAAGAGTAAATGAAGTGGGGAG 2183
Db 2198 CAATGCTGAATTTTCTTACTTGTGATCAAAAAAGAGTAAATGAAGTGGGGAG 2257
Qy 2184 CTGCTCTCCATCTTCTTCTGAGAAAGACTTCTCTCTTCTCTCTCTCATGAAATG 2243
Db 2258 CTGCTCTCCATCTTCTTCTGAGAAAGACTTCTCTCTCTCTCTCTCATGAAATG 2317
Qy 2244 GCTTATGCTCAGAGAGTGGAGACCGAGCATCCCTCCTCACTCCAGAGTGGGTGT 2303
Db 2318 GCTTATGCTCAGAGAGTGGAGACCGAGCATCCCTCCTCACTCCAGAGTGGGTGT 2377
Qy 2304 ACGGATTTTCAACTGGGCAACCTTGGCTCCTCAATTTTTCAGACCCCAT 2363
Db 2378 ACGGATTTTCAACTGGGCAACCTTGGCTCCTCAATTTTTCAGACCCCAT 2437
Qy 2364 CTTGATGCTGAAAATGGATTTGCTGAGCTTGGAGCTTCTTCCCTGCTTGTGACTA 2423
Db 2438 CTTGATGCTGAAAATGGATTTGCTGAGCTTGGAGCTTCTTCCCTGCTTGTGACTA 2497
Qy 2424 GGAACCGGACTTTAATTTCTCAGAGACATGACTGAGACATTTATCCCTTATGTT 2483
Db 2498 GGAACCGGACTTTAATTTCTCAGAGACATGACTGAGACATTTATCCCTTATGTT 2557
Qy 2484 CTTTCTCTGAGCTCCCTGAGAAATATCTCCTGTAATCTCTGTAAGTTTGGGGATA 2543
Db 2558 CTTTCTCTGAGCTCCCTGAGAAATATCTCCTGTAATCTCTGTAAGTTTGGGGATA 2617
Qy 2544 AGGGTGTAAACACACTCCAGCTTCTTCTC-TTTTTTTTTCTGAAAAAGAAAA 2602
Db 2618 AGGGTGTAAACACACTCCAGCTTCTTCTC-TTTTTTTTTCTGAAAAAGAAAA 2677
Qy 2603 GCACACAGCACAAATTTCAAGCCATTTTCAGATCAGAACTCCAGAAAGTGTGCAAGAT 2662
Db 2678 GCACACAGCACAAATTTCAAGCCATTTTCAGATCAGAACTCCAGAAAGTGTGCAAGAT 2737
Qy 2663 GCGTATTCGATGAGTTCCTCAGAAAGCCATGAGTTTAAAGAGAGAGTGTGATT 2722
Db 2738 GCGTATTCGATGAGTTCCTCAGAAAGCCATGAGTTTAAAGAGAGAGTGTGATT 2797
Qy 2723 GCTGTGCAAGAGAGCTCTCTTAAACTCTCTCTCTGATGAAATTTCTTAAGGCTG 2782
Db 2798 GCTGTGCAAGAGAGCTCTCTTAAACTCTCTCTCTCTGATGAAATTTCTTAAGGCTG 2857
Qy 2783 AAGGAATGAAGAGTGGAGACATGGGGTAACTTTATCCCTTTGTTAAAAAGAGGCA 2842
Db 2858 AAGGAATGAAGAGTGGAGACATGGGGTAACTTTATCCCTTTGTTAAAAAGAGGCA 2917
Qy 2843 GCCATGGGCTGGAGATCATAGCCCTTCTAAGAGAAATCCTGTTCACTGCAAGGCTATA 2902
Db 2918 GCCATGGGCTGGAGATCATAGCCCTTCTAAGAGAAATCCTGTTCACTGCAAGGCTATA 2977
Qy 2903 GTAATTAATTAATTTGCAATTTGAATATAATCTGTTGTTTCTAAATGGAAGAC 2962

Db 1058 GGACTTGTGCTGCTAAATCTATGACTGTACTGTGTGACGAGCAGTGGCAAGACATTC 1117
 Qy 1080 GGATTTGTGTATGAAACAATCTTTTACCAAGATGCGTAAATATGATATCAATATGAC 1129
 Db 1118 GGATTTGTGTATGAAACAATCTTTTACCAAGATGCGTAAATATGATATCAATATGAC 1177
 Qy 1140 TCAAGGCTCAACCTTCAACAACGCGGGGCTTCCAGAAAAGCAGAGAGAGCTCTTCCCA 1199
 Db 1178 TCAAGGCTCAACCTTCAACAACGCGGGGCTTCCAGAAAAGCAGAGAGAGCTCTTCCCA 1237
 Qy 1200 CATTTAAAGACTTGAATCTTTTCAAGACATCCCTGATGCTTTTGTGATGTGTACA 1259
 Db 1238 CATTTAAAGACTTGAATCTTTTCAAGACATCCCTGATGCTTTTGTGATGTGTACA 1297
 Qy 1260 TGTACAAAGCTCTCTGTATGAGACCTGTGACGCTGACTGTTGTGTGTGAGAGCTTCAAGA 1319
 Db 1298 TGTACAAAGCTCTCTGTATGAGACCTGTGACGCTGACTGTTGTGTGTGAGAGCTTCAAGA 1357
 Qy 1320 TAAATGATTAAGGCTCTTGTATGTCAATCCATAATATGATATGCAACAAGAGCCCT 1379
 Db 1358 TAAATGATTAAGGCTCTTGTATGTCAATCCATAATATGATATGCAACAAGAGCCCT 1417
 Qy 1380 TAAAGAGTGAACAACAAGTACTCAAGTTGATCTGAAAGACCGGCCCCCAAAAGGCTCTGT 1439
 Db 1418 TAAAGAGTGAACAACAAGTACTCAAGTTGATCTGAAAGACCGGCCCCCAAAAGGCTCTGT 1477
 Qy 1440 ATTCCACAGCCATGGAATCCATCCAGGAGAGGCTCGACGGGGTGTATCCATGAGATG 1499
 Db 1478 ATTCCACAGCCATGGAATCCATCCAGGAGAGGCTCGACGGGGTGTATCCATGAGATG 1537
 Qy 1500 ATGACCAATATGGGTGTGATCCCTGCGCGGAATGTAAGAGGGAAGGCTTGTGCTTTATA 1559
 Db 1538 ATGACCAATATGGGTGTGATCCCTGCGCGGAATGTAAGAGGGAAGGCTTGTGCTTTATA 1597
 Qy 1560 TTGGCATCATTTGAATCTTCAAGTCTTAAGAGTTTGTAAAGAGTTGAGACATCTTGA 1619
 Db 1598 TTGGCATCATTTGAATCTTCAAGTCTTCAAGAGTTTGTAAAGAGTTGAGACATCTTGA 1657
 Qy 1620 AAGCCCTGTGATGAGAGGAGACATGTCAGTGTGACATCGGCCAGGCTTCAAGCTGAC 1679
 Db 1658 AAGCCCTGTGATGAGAGGAGACATGTCAGTGTGACATCGGCCAGGCTTCAAGCTGAC 1717
 Qy 1680 GGTTCAGAGCGCTTCAATGTGCAACAAGTATTTAAGAAAGATTCCTTGAAGCTTCTCCTT 1739
 Db 1718 GGTTCAGAGCGCTTCAATGTGCAACAAGTATTTAAGAAAGATTCCTTGAAGCTTCTCCTT 1762
 Qy 1740 CCAAAAAGTTTGGCTGTGCTCATCTTCTCTCGGCGAGAGGCTCCAGTGCACATCCT 1799
 Db 1763 CCAAAAAGTTTGGCTGTGCTCATCTTCTCTCGGCGAGAGGCTCCAGTGCACATCCT 1762
 Qy 1800 GCATTACTTACCAAGCATCGGCTCTCTGCGGGAACAACAAGGCAACAGTGCACAAAGGCG 1859
 Db 1763 GCATTACTTACCAAGCATCGGCTCTCTGCGGGAACAACAAGGCAACAGTGCACAAAGGCG 1762
 Qy 1860 AAGTGAAGCAGGCGTTCACCTTGTGCTGCTGATGTTTATCACTCAAGCTTCAACCTTTGG 1919
 Db 1763 AAGTGAAGCAGGCGTTCACCTTGTGCTGCTGATGTTTATCACTCAAGCTTCAACCTTTGG 1810
 Qy 1920 AGGAAATCATGAGAGGCTGCGCTTATTCCTGACCCCAAGTTTCTCACTTATGTTGAGAGA 1979
 Db 1811 AGGAAATCATGAGAGGCTGCGCTTATTCCTGACCCCAAGTTTCTCACTTATGTTGAGAGA 1870
 Qy 1980 CTTTGAAGAGCTTAACTTCAAGTACAAAGTGTGAAAAGCTTGAAGTTGCAAGTCAAGT 2039
 Db 1871 CTTTGAAGAGCTTAACTTCAAGTACAAAGTGTGAAAAGCTTGAAGTTGCAAGTCAAGT 1930
 Qy 2040 TCACCCATTAAGCCCAAGGCTCAGAAAGCTGGAACAAGATTCGACATCTGTGATC 2099
 Db 1931 TCACCCATTAAGCCCAAGGCTCAGAAAGCTGGAACAAGATTCGACATCTGTGATC 1990
 Qy 2100 CCAAGATGTACGCTTGTGCGCCAGCAATGTGAATTTCTTCTATCTTGTGATCAAAAA 2159
 Db 1991 CCAAGATGTACGCTTGTGCGCCAGCAATGTGAATTTCTTCTATCTTGTGATCAAAAA 2050

Qy 2160 GGAGTGTATGAAAGTGAAGGAGAGCTGTCTCCATCTTCTTCTGAAAGAAAGCTTCT 2219
 Db 2051 GGAGTGTATGAAAGTGAAGGAGAGCTGTCTCCATCTTCTTCTGAAAGAAAGCTTCT 2110
 Qy 2220 CTCCTTCTCTTCTCTCAAGAAAGGAGCTTGTAGTGTCTGAGAGTGTGAGACCGAGCATC 2279
 Db 2111 CTCCTTCTCTTCTCTCAAGAAAGGAGCTTGTAGTGTCTGAGAGTGTGAGACCGAGCATC 2170
 Qy 2280 CCTTCCACTCCAGAGTGTGGGTGTAGAGATTTTAACTGTGCAACCTTGTGCTTCCACTA 2339
 Db 2171 CCTTCCACTCCAGAGTGTGGGTGTAGAGATTTTAACTGTGCAACCTTGTGCTTCCACTA 2230
 Qy 2340 TTGAATTTTCTTCAAGACCCCAATCTTCAATGCTGGAATGGGATTTGCTGACTTGGAGC 2399
 Db 2231 TTGAATTTTCTTCAAGACCCCAATCTTCAATGCTGGAATGGGATTTGCTGACTTGGAGC 2230
 Qy 2400 TTTCTTTCCCTGCTCTTGTGATGAGAACCGGACTCTTAAATTTCTGAGACAGACTAGC 2459
 Db 2291 TTTCTTTCCCTGCTCTTGTGATGAGAACCGGACTCTTAAATTTCTGAGACAGACTAGC 2350
 Qy 2460 TGGCAATATCCCTTACCTTATGTTCTTCTCTGACTCTGGAAGAAATCTCTGTAT 2519
 Db 2351 TGGCAATATCCCTTACCTTATGTTCTTCTCTGACTCTGGAAGAAATCTCTGTAT 2410
 Qy 2520 CTCGTAAAGGTTTGTGGGGGATGAAGGTGTTTAAACAACCTCCAGGCTTCTTCTTC-TT 2578
 Db 2411 CTCGTAAAGGTTTGTGGGGGATGAAGGTGTTTAAACAACCTCCAGGCTTCTTCTTC-TT 2470
 Qy 2579 TTTTCTTCTGAAAAAGAAAAAGCAACAGACACACAAATTTCAAGCCATTTTGATCA 2638
 Db 2471 TTTTCTTCTGAAAAAGAAAAAGCAACAGACACACAAATTTTGATCAAGCCATTTTGATCA 2530
 Qy 2639 GAACTCCAGAAAGTGTGACAAAGATGCTTATCTGTAGAGTTCTCTCAAGAGCCATGTG 2688
 Db 2531 GAACTCCAGAAAGTGTGACAAAGATGCTTATCTGTAGAGTTCTCTCAAGAGCCATGTG 2590
 Qy 2699 TTTATGAAGAAAGATGATGATGCTCTGACAGACAGCTCTCTTAAACCTCTCT 2758
 Db 2591 TTTATGAAGAAAGATGATGATGCTCTGACAGACAGCTCTCTTAAACCTCTCTCT 2650
 Qy 2759 CTCTTGTATGAAATTTCTTAAAGCTGTAAGAAATGAAGAGTGGGACATGCGGTAACTTTTA 2818
 Db 2651 CTCTTGTATGAAATTTCTTAAAGCTGTAAGAAATGAAGAGTGGGACATGCGGTAACTTTTA 2710
 Qy 2819 TCCCTTTTGTAAACAGAGGACGCCATGCGCTGGAAGTCAATAGCCCTTCTAGGCG 2878
 Db 2711 TCCCTTTTGTAAACAGAGGACGCCATGCGCTGGAAGTCAATAGCCCTTCTAGGCG 2770
 Qy 2879 AATCCGTGTACCTGCGCAGGCTATGTAATTAATTAATTTTGAATTTGAATTAATTTCT 2938
 Db 2771 AATCCGTGTACCTGCGCAGGCTATGTAATTAATTAATTTTGAATTTGAATTAATTTCT 2830
 Qy 2939 GGTGTTTCTTCTAATGTGAAGACTTACCAATGAATTTTATGATCTTCTCCAGAGAGA 2998
 Db 2831 GGTGTTTCTTCTAATGTGAAGACTTACCAATGAATTTTATGATCTTCTCCAGAGAGA 2890
 Qy 2999 TTTTCTTGTCTTCTCATCTTTTCAACAGTGTCTCTGTTTGTGAGCTAAGTAA 3058
 Db 2891 TTTTCTTGTCTTCTCATCTTTTCAACAGTGTCTCTGTTTGTGAGCTAAGTAA 2950
 Qy 3059 GAGGGGACATCTTGTGTGTTTAAACAAGTGCATATCTGTAGGCGCAGAAATATTTT 3118
 Db 2951 GAGGGGACATCTTGTGTGTTTAAACAAGTGCATATCTGTAGGCGCAG----- 3000
 Qy 3119 CTTAAACTCATGGGAGACAGACATCTTGTGAGTGTGATGCTGTGCAATATG 3178
 Db 3001 CTTAAACTCATGGGAGACAGACATCTTGTGAGTGTGATGCTGTGCAATATG 3000
 Qy 3179 TCTTACCCCTGTCTTCAATGACGGAAGTTGAAATGGGGCTTACATAATGCTCTCTCT 3238
 Db 3001 TCTTACCCCTGTCTTCAATGACGGAAGTTGAAATGGGGCTTACATAATGCTCTCTCT 3000

Qy	1380	TAAACAGTGAACACACATTACTCAAGTTGATACCTGGAAGACCGGCCCCCAAAAGGCTCTGT	143.9
Db	1418	TAAACAGTGAACACACATTACTCAAGTTGATACCTGGAAGACCGGCCCCCAAAAGGCTCTGT	147.77
Qy	1440	ATTCCACAGCCATGGAATCCATCCAGGGAAGGCTCGACGGGGTGTGATCATGAGACTG	149.9
Db	1478	ATTCCACAGCCATGGAATCCATCCAGGGAAGGCTCGACGGGGTGTGATCATGAGACTG	153.7
Qy	1500	ATGACCATATGGGTGGCATCCCTGCCCCGGAATGTAAAGGGGAAAGGCTTCTGTATTATA	155.95
Db	1538	ATGACCATATGGGTGGCATCCCTGCCCCGGAATGTAAAGGGGAAAGGCTTCTGTATTATA	159.97
Qy	1560	TTGGCATCATGGAATCTCAAGCTTTACAGGTTTGTATTAAGAAAGTTGAGGACCTTGAGA	161.19
Db	1598	TTGGCATCATGGAATCTCAAGCTTTACAGGTTTGTATTAAGAAAGTTGAGGACCTTGAGA	165.73
Qy	1620	AAGCCCTGTATCATGACGGAGACACTGTCTCAGTGATCGCCACGAGCTTCTACGCTGAAC	167.91
Db	1658	AAGCCCTGTATCATGACGGAGACACTGTCTCAGTGATCGCCACGAGCTTCTACGCTGAAC	171.7
Qy	1680	GGTTCCAGCGCTTCATGTGCAACAAGATATTAAAGAAATCCCTTGAAGCCTTCTCCTT	173.9
Db	1718	GGTTCCAGCGCTTCATGTGCAACAAGATATTAAAGAAATCCCTT-----	176.82
Qy	1740	CCAAAAAGTTTCGGTCTGGCTCATCTTTCTCTCGCGGACGACGAGCTCAATGGAACCTCCT	179.99
Db	1763	-----	176.82
Qy	1800	GCATTATCTTACAGCCCATCGGTCTGTGGGGAACAAGGACAAGATGACAAAGGACG	185.9
Db	1763	-----	176.82
Qy	1860	AAGTGAAGCCAGCGGTTCACTTGGTGTCTGTAGTGTTTACTCAGACTCCACTTTGG	191.19
Db	1763	-----GGTTCACTTGGTGTCTGTAGTGTTTACTCAGACTCCACTTTGG	181.10
Qy	1920	AGGAATCATGTAAGGGGTCCGCTAATTCGTAACCCGAGTTTTCACCTCTAAGTTGAGAGA	197.9
Db	1811	AGGAATCATGTAAGGGGTCCGCTAATTCGTAACCCGAGTTTTCACCTCTAAGTTGAGAGA	187.70
Qy	1980	CTTTGCAAAATGCTAATCAACAAGTACAACTTGGAAAAGCTTGAAGTTGACAGTCAAGT	203.9
Db	1871	CTTTGCAAAATGCTAATCAACAAGTACAACTTGGAAAAGCTTGAAGTTGACAGTCAAGT	193.10
Qy	2040	TCACCCATTAAAGCGCAAGGCTCAGAAAGCTTGAACAAGATTTGCGCATCTCTGTATC	209.9
Db	1931	TCACCCATTAAAGCGCAAGGCTCAGAAAGCTTGAACAAGATTTGCGCATCTCTGTATC	199.10
Qy	2100	CCAAAGATGTCAAGCCCTTGGCCCCAGCAATGCTGAATTTCTTCTAATGCTCATCAAAAA	215.9
Db	1991	CCAAAGATGTCAAGCCCTTGGCCCCAGCAATGCTGAATTTCTTCTAATGCTCATCAAAAA	205.10
Qy	2160	GGAAGTGAATGAAGTGAAGGGGAGGAGCTGCTCCGATCTTCTCTGAAGAAAGAACTTCT	221.19
Db	2051	GGAAGTGAATGAAGTGAAGGGGAGGAGCTGCTCCGATCTTCTCTGAAGAAAGAACTTCT	211.10
Qy	2220	CTCCTTCTCTTCTCTCATGATGAGGCTTATGCTCTCAGAGAGTTGAGGACCGCAGCATC	227.9
Db	2111	CTCCTTCTCTTCTCTCATGATGAGGCTTATGCTCTCAGAGAGTTGAGGACCGCAGCATC	217.10
Qy	2280	CCCTTCACATCCAGAGTTGGGTGTGAGGATTTTCAACTGGCCAACTCTTGTGCTTCATA	233.9
Db	2171	CCCTTCACATCCAGAGTTGGGTGTGAGGATTTTCAACTGGCCAACTCTTGTGCTTCATA	223.10
Qy	2340	TTGAATTTTTTGAAGCCCACTTCTCATGCTGGAATGGGATTTGTGGAATTGGGACG	239.9
Db	2231	TTGAATTTTTTGAAGCCCACTTCTCATGCTGGAATGGGATTTGTGGAATTGGGACG	229.10
Qy	2400	TTTCTTTTCCCTGTCTTTTGAATGAGAAACCGGACTTTATTTTCTCAGAGACAGACTAGC	245.9
Db	2291	TTTCTTTTCCCTGTCTTTTGAATGAGAAACCGGACTTTATTTTCTCAGAGACAGACTAGC	235.10
Qy	2460	TGGACATTAATCCCTACCTTAATGTTCTTTCTCTGTGACTCCGTGAAGAAATCACTGTAT	251.19

Db	2351	TGCACTATTCCTTACCTTAGTTCTTCTCTGACTCTCTGGAAATATCTCTGTAT	2410
Oy	2520	CTGTAAAGGTTTTTGGGGGATPAAGGTTGTTTAAACAATCCAGCTTTCCTTC-TT	2578
Db	2411	CTCTGAAGGTTTTTGGGGGATPAAGGTTGTTTAAACAATCCAGCTTTCCTTCCTT	2470
Oy	2519	TTTTTTTTCTGAAAAAGAAAAAGCAACAGACACAATTTCAAGCAATTTTCAGATCA	2638
Db	2471	TTTTTTTTCTGAAAAAGAAAAAGCAACAGACACAATTTCAAGCAATTTTCAGATCA	2530
Oy	2659	GAACTCCAGAAGTTTGAACAAGTGGCTTATTTGGTAGTTCCTCAGAAAGCAATGGTG	2698
Db	2551	GAACTCCAGAAGTTTGAACAAGTGGCTTATTTGGTAGTTCCTCAGAAAGCAATGGTG	2590
Oy	2699	TTTATGAAGAGAAGATGATGTGCTCTGCAAGAAGCAGCTCTCTTTAAACTCTCT	2758
Db	2591	TTTATGAAGAGAAGATGATGTGCTCTGCAAGAAGCAGCTCTCTTTAAACTCTCT	2650
Oy	2759	CTCTTGATGAATTTCTTAAGCTGAAGAGATGAAGAGTGGGACATGGGTAATCTTTA	2818
Db	2651	CTCTTGATGAATTTCTTAAGCTGAAGAGATGAAGAGTGGGACATGGGTAATCTTTA	2710
Oy	2819	TCCCTTTTGTATAAACAAGAGGAGCAATGGGCTGGGAGATCATAGCCCTTCATAGGAG	2878
Db	2711	TCCCTTTTGTATAAACAAGAGGAGCAATGGGCTGGGAGATCATAGCCCTTCATAGGAG	2770
Oy	2879	AATCTGTCACTGCGCAGGCTATAGTAAATTTATTAATAATTTGCAATTTGAATATATCT	2938
Db	2771	AATCTGTCACTGCGCAGGCTATAGTAAATTTATTAATAATTTGCAATTTGAATATATCT	2850
Oy	2939	GATTGTTTTCTAAATGTGAAGCTTACCAAAATGAATTTAGATCATTTCTCAAGAGAGA	2998
Db	2831	GATTGTTTTCTAAATGTGAAGCTTACCAAAATGAATTTAGATCATTTCTCAAGAGAGA	2890
Oy	2999	TTTTTTTGCCTTCATCATTTTTCACAAGATTTCTCCTGTTTGTGAAGTAAAGTAA	3058
Db	2891	TTTTTTTGCCTTCATCATTTTTCACAAGATTTCTCCTGTTTGTGAAGTAAAGTAA	2950
Oy	3059	GAGGGGACACTTCTGTCTGTTTAAACAAGTCATCATCTGTGAGGCGCAAAATATTTT	3118
Db	2951	GAGGGGACACTTCTGTCTGTTTAAACAAGTCATCATCTGTGAGGCGCAAG-----	3000
Oy	3119	CTTAACTCATGGGAGACAGACAGATTTCTTGCTTGAGGTCATTTGTCGCATATG	3178
Db	3001	-----	3000
Oy	3179	TCCTAACCCCTGTCTTCATGACAGGAAGTTGAAATGGGGCTACATATGCCCTTCT	3238
Db	3001	-----	3000
Oy	3239	CCCCGTCAACAAGTGTGTGTTTTCATCTGATCCTTCACTCTGTCAAGGGAAAGAG	3298
Db	3001	-----	3000
Oy	3299	GGGGCTGTATCTCAGGCAGATTTGTGAATCTGTTCATCCCTTCTATATCCACCC	3358
Db	3001	-----	3000
Oy	3359	TGCCTGATATATATGTTAGCCCAATACCCCAATTAATCTGTATATTAACACCCCAACC	3418
Db	3001	-----CAATTAATCTGTATATTAACACCCCAACC	3032
Oy	3419	AGTTTCGGGCGCTGTCTTGTGCGCATGTTTTTAAACAAGAAAGAAATTCCTGTCTA	3478
Db	3033	AGTTTCGGGCGCTGTCTTGTGCGCATGTTTTTAAACAAGAAAGAAATTCCTGTCTA	3092
Oy	3479	TTTTTTTTCATATATTAATTAATTAATGATGATTTTAAGTGTTTATTAAGACAGATTC	3538
Db	3093	TTTTTTTTCATATTAATTAATTAATGATGATTTTAAGTGTTTATTAAGACAGATTC	3152
Oy	3539	TGTTAAGGGGTGGAGGATATTTTGAAGGAGGCTGGGTCTTAAGGAAAGAAATGGGGAA	3598

Qy	864	AGCGCGTGAATGAACCTGCTGACTCTGGAGCGTAGGCTTCCCTATTTGATATGTCGACGC	923
Db	938	AGCCGCTGATTTGAACCTCTGTACTCTGGAGCTAGTGTTCCCTATTTCTATGTGTCCAGCG	997
Qy	924	ACGATGAGTTCAATATTATTAAGA CAGTCCAACTAAAGAGCGGAA TTTCTGCAAGACTGC	983
Db	998	ACGATGAGTTCAATATTATTAAGA CAGTCCAACTAAAGAGCGGAA TTTCTGCAAGACTGC	1057
Qy	984	TTCCAGGATTTCTATCATGAACCTTCACACGAAACCTTCGGACCTTGTGCTGCTAAATTTCTATG	1043
Db	1058	TTCCAGGATTTCTATCATGAACCTTCACACGAAACCTTCGGACCTTGTGCTGCTAAATTTCTATG	1117
Qy	1044	GACTGTACTGTGTGACGAGGAGTGGCAAGAACATTCGATTTGTGTATGATGAACATCTTT	1103
Db	1118	GACTGTACTGTGTGACGAGGAGTGGCAAGAACATTCGATTTGTGTATGATGAACATCTTT	1177
Qy	1104	TACCAAGATCGTAAATAATGCAATTCATAATATGACTCTAAAGGCTCAACCTTCAAAAGGC	1163
Db	1178	TACCAAGATCGTAAATAATGCAATTCATAATATGACTCTAAAGGCTCAACCTTCAAAAGGC	1237
Qy	1164	GGGCTTCCAGAAAGAGCGAGAGAAAGCCCTCTCCACATTTTAAAGACCTTAGACTTCTTAC	1223
Db	1238	GGGCTTCCAGAAAGAGCGAGAGAAAGCCCTCTCCACATTTTAAAGACCTTAGACTTCTTAC	1297
Qy	1224	AAGACATCCCTGATGCTCTTTTGTGGATGCTGACATGTACACGCTCTCTGTAAAGCC	1283
Db	1298	AAGACATCCCTGATGCTCTTTTGTGGATGCTGACATGTACACGCTCTCTGTAAAGCC	1357
Qy	1284	TGCGACGTGACGTGTTGGTGTGCTGCGAGAGCTTCACATTAATGATTAAGAGCTCTGTATGT	1343
Db	1358	TGCGACGTGACGTGTTGGTGTGCTGCGAGAGCTTCACATTAATGATTAAGAGCTCTGTATGT	1417
Qy	1344	CAATTCATTAATATAGATTCATGTGCAACAAGAGAGCCCTTAAGACGTGAACA CAGTACTCAG	1403
Db	1418	CAATTCATTAATATAGATTCATGTGCAACAAGAGAGCCCTTAAGACGTGAACA CAGTACTCAG	1477
Qy	1404	TTGATACTCGAAGACCGGCCCCCAAAAGGCTCTGTATTTCCACAGCCATGGAATCCATCC	1463
Db	1478	TTGATACTCGAAGACCGGCCCCCAAAAGGCTCTGTATTTCCACAGCCATGGAATCCATCC	1537
Qy	1464	AGGAGAGGCTCGACGCGGGGTGTACCATGAGACATGATGACCAATATGGGTGGACTCCCTG	1523
Db	1538	AGGAGAGGCTCGACGCGGGGTGTACCATGAGACATGATGACCAATATGGGTGGACTCCCTG	1597
Qy	1524	CCCGGAATAGTAAAGAGGGAAGAGGCTTCTGCTTATATTTGGCATCATTTCAACGT	1583
Db	1598	CCCGGAATAGTAAAGAGGGAAGAGGCTTCTGCTTATATTTGGCATCATTTCAACGT	1657
Qy	1584	CTTACAGAGTTGTTAATGAAGTTGGAACACTCTTGGAAAGCCCTGGTACATGACGAGACA	1643
Db	1658	CTTACAGAGTTGTTAATGAAGTTGGAACACTCTTGGAAAGCCCTGGTACATGACGAGACA	1717
Qy	1644	CTGTCTCAGTGACTCGCGCCAGGCTTCTAGCGTGAACGCTTCAGGCTTCATGTGCAACA	1703
Db	1718	CTGTCTCAGTGACTCGCGCCAGGCTTCTAGCGTGAACGCTTCAGGCTTCATGTGCAACA	1777
Qy	1704	CAGTATTTAAGAAGATTCCTCTTGAACCTTCTCTTCCAAAAGTTTGGGTGTGGCTCAT	1763
Db	1778	CAGTATTTAAGAAGATTCCTCTTGAACCTTCTCTTCCAAAAGTTTGGGTGTGGCTCAT	1798
Qy	1764	CTTTCTCTCGCGCAGCAGGCTCGAGTGGCAACTCTGTCACTTACCAAGCATCGTCT	1823
Db	1799	CTTTCTCTCGCGCAGCAGGCTCGAGTGGCAACTCTGTCACTTACCAAGCATCGTCT	1798
Qy	1824	CTGGGGAACACAAAGCACAAGTGACAAACAAGCGAGAGTGAAGCCGCTTCACTTG	1883
Db	1799	CTGGGGAACACAAAGCACAAGTGACAAACAAGCGAGAGTGAAGCCGCTTCACTTG	1810
Qy	1884	GTGCTCTGATGTTTATACCTCAGACTCCACTTTGGAGGAATTCAGTAGGCTCGACTTA	1943
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QY 1944 TTCTGAACCCAGTTTCTACCTCTAGTTGAGAGACTTTGCAAACTGTAACTA 2003
 Db 1871 TTCTGAACCCAGTTTCTACCTCTAGTTGAGAGACTTTGCAAACTGTAACTA 1930
 QY 2004 CAACCTTGAAAGAACTTGAAGTTGAGAGTTTCAACCTTTAAGCGCAAGCTTCA 2063
 Db 1931 CAACCTTGAAAGAACTTGAAGTTGAGAGTTTCAACCTTTAAGCGCAAGCTTCA 1990
 QY 2064 GAAGACCTTGAAAGAACTTGAAGTTGAGAGTTTCAACCTTTAAGCGCGCCAG 2123
 Db 1991 GAAGACCTTGAAAGAACTTGAAGTTGAGAGTTTCAACCTTTAAGCGCGCCAG 2050
 QY 2124 CAATGCTGAATTTTCTTCTACTGTCATCAAAAAGAGTGAATGAAGTGAAGGAG 2183
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 QY 2184 CTGCTCTCTCATCTTCTTCTGAGAGAACTTCTCTCTCTCTCTCTCTCTCTCT 2243
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 QY 2244 GCCTTAGGCTGAGAGTTGAGAGCCGAGCAATCCCTCTCACTCCAGAGTTGGTGT 2303
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 QY 2304 ACAGATTTTCAACTGCGCAACCTTGGCTCCACTATGAATTTTTCAGACCCCAAT 2363
 Db 2231 ACAGATTTTCAACTGCGCAACCTTGGCTCCACTATGAATTTTTCAGACCCCAAT 2290
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 Db 2351 GGAACGGGAGCTCTAATTTCTCTGAGAGCACTAGCTGAGCAATTTTCCCACTTACT 2410
 QY 2484 CTTCCTCTGACTCTCTGAGAGAACTCTCTGTAATCTCTGTAAGTTTTCAGAGG 2543
 Db 2411 CTTCCTCTGACTCTCTGAGAGAACTCTCTGTAATCTCTGTAAGTTTTCAGAGG 2470
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 Db 2531 GCACAGAGCAACAATTTCAAGCAATTTGATCAGAACTCCAGAGTGTGCAAGAT 2590
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 Db 2591 GCCTATTCTAGAGTTCCCTCAGAGAGCACTGAGTTTATGAAGAGAGTATGAT 2650
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 QY 2783 AAGGAATGAAGAGTGGAGCAATGGGGTAATCTTTATCCCTTTTGTAAACAGAGCA 2842
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Db 2951 CCAACAGTGTCTCTCTGTTGAGAGTAAAGTAAAGGAGGACACTTCTGTCTGTTAA 3010
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 Db 3011 CAGACATCTCATCTCTGAGGCGCAG----- 3036
 QY 3143 ATTCTGCTGTGAGGTCAATTCCTGCAATATGTCCTAACCCCTGTCTCATGAG 3202
 Db 3037 ----- 3036
 QY 3203 GGAAGTTGAATGGGGCTATATATGCTCTCTCTCTCTCTCTCTCTCTCTCTCT 3262
 Db 3037 ----- 3036
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 Db 3037 ----- 3036
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 Db 3037 ----- 3036
 QY 3383 ACCCAATTAATCTCTATATTAAGACACCCCGACAGTTTCTGCTGCTCTTGTCT 3442
 Db 3037 -----CAATTAATCTCTATATTAAGACACCCCGACAGTTTCTGCTGCTCTTGTCT 3092
 QY 3443 GCCATGTTTAAACAGAGAGAAATTTCTGCTATTTTCTTCAATTAATTAATTA 3502
 Db 3093 GCCATGTTTAAACAGAGAGAAATTTCTGCTATTTTCTTCAATTAATTAATTA 3152
 QY 3503 ATGATGATTAATTAATGTTTATTAAGACAGAGTTCTGAGGGTGGAGGAGTAATTT 3562
 Db 3153 ATGATGATTAATTAATGTTTATTAAGACAGAGTTCTGAGGGTGGAGGAGTAATTT 3212
 QY 3563 GAGGAGGGGCTGCTTGAAGAGAGATGGGAGCAATTTTATTAAGTACT 3622
 Db 3213 GAGGAGGGGCTGCTTGAAGAGAGATGGGAGCAATTTTATTAAGTACT 3272
 QY 3623 ATTGCTCTTACTTGTATTTGTTCAAGAAATGGCAATTAATTAATTAATTAATTA 3682
 Db 3273 ATTGCTCTTACTTGTATTTGTTCAAGAAATGGCAATTAATTAATTAATTAATTA 3332
 QY 3683 TTTAATGAATTAATCTTAATGATTATTA 3713
 Db 3333 TTTAATGAATTAATCTTAATGATTATTA 3363

RESULT 15

US-09-949-016-5869

Sequence 5869, Application US/09949016

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: C0001307

CURRENT APPLICATION NUMBER: US/09/949, 016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241, 755

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/237, 768

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/231, 498

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastSeq for Windows Version 4.0

SEQ ID NO 5869

LENGTH: 2691

TYPE: DNA

ORGANISM: Human

US-09-949-016-5869

Query Match

72.2%; Score 2679; DB 7; Length 2691;

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Qy	1084	TTGTGTGATGAACAATTCCTTTTACCAAGATCCGGTAAATAATGCATATCAATATGACCTCA	1143								
Db	61	TTGTGTGATGAACAATTCCTTTTACCAAGATCCGGTAAATAATGCATATCAATATGACCTCA	120								
Qy	1144	AGGCTCAACCTTCAAAACGGCGGGCTTCCAGAAAGACGAGAGACCTCTTCCACATT	1203								
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Qy	1204	TAAAGCCTAAGACTTCTTACAGACATCCCTGATGGTCTTTTGTGATGCTGACATGTA	1263								
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Qy	1264	CAACGCTCTGTAAAGACCCCTGAGGGTGACTGTGTGTGCTCAGAGCTTCAAGATAAT	1323								
Db	241	CAACGCTCTGTGTAAAGACCCCTGAGGGTGACTGTGTGTGCTCAGAGCTTCAAGATAAT	300								
Qy	1324	GGATTAACGGCTTGTGATGCAATCCATAATATGATCATGCAACACGAGACCTTTAAG	1383								
Db	301	GGATTAACGGCTTGTGATGCAATCCATAATATGATCATGCAACACGAGACCTTTAAG	360								
Qy	1384	CAGTGAACAACATTAATCAATGATATCTGAAAGCGGGCCCCCAAAAGGCTCTGATTC	1443								
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Qy	1444	CACAGCATTGAATTCATCCAGAGAGAGGCTCGACGGGGTGTACCATGAGACTGATGA	1503								
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Qy	1504	CCATATGGGTGGCATCCCTGCCCGGAAATAGTAAAGGGGAAAGAGCTTCGCTTATATGG	1563								
Db	481	CCATATGGGTGGCATCCCTGCCCGGAAATAGTAAAGGGGAAAGAGCTTCGCTTATATGG	540								
Qy	1564	CATCATTAACAATTCTACAGTCTTACAGGTTTGTAAAGATTGGAGCACTTTGGAAAGC	1623								
Db	541	CATCATTAACAATTCTACAGTCTTACAGGTTTGTAAAGATTGGAGCACTTTGGAAAGC	600								
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Qy	1924	AATCATGTAAGGCTGTGCTATTCCTGACCCCAAGTTTCTCACTCTAAGTTGAGAGACTTT	1983								
Db	901	AATCATGTAAGGCTGTGCTATTCCTGACCCCAAGTTTCTCACTCTAAGTTGAGAGACTTT	960								
Qy	1984	GCAATATGCTAATACAGTACAACCTTGGAAAGCTTGAAGTTGAGAGTCAAGATTAC	2043								
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Qy	2164	TGTAAATAGAAGTAGAGGGAGCTGCTCCTCCATCTTCTCTCGAAGAAAGAACCTTCTGCC	2223
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Db	1381	TTTTCCCTGCTTTTGAATGAGAACCGGACTCTTAATTCTCCTCAGAGACACTAGCTGGC	1440
Qy	2464	ACATTAATCCCTACCTTAAGTTCTTCTCTCTGACTCTCTGGAGAATACTCTGTAACTCT	2523
Db	1441	ACATTAATCCCTACCTTAAGTTCTTCTCTCTGACTCTCTGGAGAATACTCTGTAACTCT	1500
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Db	1501	GTTAAAGTTTTTGGGGGAAATGAAGGTGTTTAAACAACCTCCAGCTTCTCTCTCTCTTTTTT	1560
Qy	2583	TTTTTCGAAAAAAGAAAAAGACAAGACAACAATTTCAAGCCATTTTCAGATCAGAAC	2642
Db	1561	TTTTTCGAAAAAAGAAAAAGACAAGACAACAATTTCAAGCCATTTTCAGATCAGAAC	1620
Qy	2643	TCCAGAAGTGTGACAAGATGCTCTTATCTGTAGAGTTCCCTCAGAAAGGCATGAGTGTTA	2702
Db	1621	TCCAGAAGTGTGACAAGATGCTCTTATCTGTAGAGTTCCCTCAGAAAGGCATGAGTGTTA	1680
Qy	2703	TGAAAGAAAGATGATGATGCTCTGCGCAGAAAGCAGCTCCTCTTAACTCCTCCTCTCT	2762
Db	1681	TGAAAGAAAGATGATGATGCTCTGCGCAGAAAGCAGCTCCTCTTAACTCCTCCTCTCT	1740
Qy	2763	TGATGAATTTCTTAAGGCTGMAAGAAATGMAAGAGTGGGACATGAGGATATCTTAACTCC	2822
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Qy	2823	TTTTGTTAAACAGAGAGGACCATGAGGCTGGAGATCATAGCCCTTCTTAGGCACAATC	2882
Db	1801	TTTTGTTAAACAGAGAGGACCATGAGGCTGGAGATCATAGCCCTTCTTAGGCACAATC	1860
Qy	2883	CTGTTCACCTCCAGGCTATGTAATTAATTAATTTTGCATTTTGAATTAATTAATTCGGTT	2942
Db	1861	CTGTTCACCTCCAGGCTATGTAATTAATTAATTTTGCATTTTGAATTAATTAATTCGGTT	1920
Qy	2943	GTTTTTCTAAATGGAAGACTTAACCAATGAATTTTATGATCATTTCTCAGAGAGATTTT	3002
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Db	1981	TTTTTGCTCTTCTCATCTTTTCCAAAGATGTTCTCCTGTTGTGAGAGTAAGTAAAGG	2040
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GenCore version 5.1.5
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OM nucleic - nucleic search, using sw model

Run on: May 13, 2003, 01:53:59 ; Search time 8946 Seconds
(without alignments)
10435.285 Million cell updates/sec

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2	3713	100.0	3713	38 US-10-003-354-3	Sequence 9790, Ap
3	3702	99.7	3714	1 PCT-US01-08631-9790	Sequence 8633, Ap
4	3690.8	99.4	4264	30 US-09-770-175-8633	Sequence 24965, A
5	3688	99.3	3720	76 US-60-324-185-24985	Sequence 736, App
6	3678.4	99.1	4266	26 US-09-667-228-736	Sequence 11092, A
7	3678.4	99.1	4266	27 US-09-699-997-11092	Sequence 2253, Ap
8	3678.4	99.1	4266	29 US-09-726-802-2146	Sequence 4040, Ap
9	3678.4	99.1	4266	29 US-09-726-802-2146	Sequence 1871, Ap
10	3666.4	98.7	3732	71 US-60-278-258-4040	Sequence 4035, Ap
11	3651.4	98.3	3751	61 US-60-213-360-1871	Sequence 42, Appl
12	3599.2	96.9	3787	61 US-60-172-373-4035	Sequence 9786, Ap
13	3038.4	81.8	32768	66 US-60-229-525-42	Sequence 88, Appl
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15	2014	54.2	2133	38 US-10-003-354-88	Sequence 89, Appl
16	2014	54.2	2133	38 US-10-003-354-88	Sequence 24963, A
17	1852	49.9	2010	1 PCT-US01-08631-9787	Sequence 6828, Ap
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19	1805.2	48.6	2044	76 US-10-003-354-89	
20	1533	41.3	1580	28 US-09-705-256A-6828	
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Dh 1261 GTACACGCTCTCTGTAGAACCTTGACGCTGACTGTTTGTGCTGACAGACTTCAMAGT 1320
Qy 1321 AATGATTTACAGCCTCTGTATGTCAATCATATATATAGATCATGACACAAAGAGCCCTT 1380
Dh 1321 AATGATTTACAGCCTCTGTATGTCAATCATATATATAGATCATGACACAAAGAGCCCTT 1380
Qy 1381 AAGCAGTGAACACAGATCTCAGTTGATATCTGAAGACCGGCCCCCAAAAGGCTCTGTA 1440
Dh 1381 AAGCAGTGAACACAGATCTCAGTTGATATCTGAAGACCGGCCCCCAAAAGGCTCTGTA 1440
Qy 1441 TTCCACAGCCATGGAATTCATTCAGAGAGAGGCTGACAGGGGTGTATCATGAGACCTGA 1500
Dh 1441 TTCCACAGCCATGGAATTCATTCAGAGAGAGGCTGACAGGGGTGTATCATGAGACCTGA 1500
Qy 1501 TGACCATATGGGTGTCATCCCTGCCCCGAAATGTAAGGGGAAGGCTTGTCTTATAT 1560
Dh 1501 TGACCATATGGGTGTCATCCCTGCCCCGAAATGTAAGGGGAAGGCTTGTCTTATAT 1560
Qy 1561 TGGCATCATTTGACATTTCTACAGTCTTACAGGTTTGTAAAGAGTTGAGACCTCTTGAA 1620
Dh 1561 TGGCATCATTTGACATTTCTACAGTCTTACAGGTTTGTAAAGAGTTGAGACCTCTTGAA 1620
Qy 1621 AGCCCTGGTACATGACGAGACACTGTCTCAGTGCATGCCAGGCTTCTAGCTGAACG 1680
Dh 1621 AGCCCTGGTACATGACGAGACACTGTCTCAGTGCATGCCAGGCTTCTAGCTGAACG 1680
Qy 1681 GTTCACAGGCTTCAATGTGCAACACAGATTTTAAGAGATTCCTTGAAGGCTTCTCTTC 1740
Dh 1681 GTTCACAGGCTTCAATGTGCAACACAGATTTTAAGAGATTCCTTGAAGGCTTCTCTTC 1740
Qy 1741 CAATAAGTTTCGCTGCTGCTCATCTTCTCTCGGAGACAGGCTTCAGTGCACACTCTG 1800
Dh 1741 CAATAAGTTTCGCTGCTGCTCATCTTCTCTCGGAGACAGGCTTCAGTGCACACTCTG 1800
Qy 1801 CATTAATCTTACAGGACATGCTGTCTGTGGGAAACAAAGGCAAAAGGCGAGA 1860
Dh 1801 CATTAATCTTACAGGACATGCTGTCTGTGGGAAACAAAGGCAAAAGGCGAGA 1860
Qy 1861 AGTGAAGCAGGCGCTTCACTTGTGCTGATGTTTATCTGACATCTCACCTTGA 1920
Dh 1861 AGTGAAGCAGGCGCTTCACTTGTGCTGATGTTTATCTGACATCTCACCTTGA 1920
Qy 1921 GGAATCATGAGGAGGCTGACCTTCTCTGACCCCAAGTTTCTCACCTTGAAGAGAC 1980
Dh 1921 GGAATCATGAGGAGGCTGACCTTCTCTGACCCCAAGTTTCTCACCTTGAAGAGAC 1980
Qy 1981 TTTCGAAATGCTTAACTTACAGTCAAACTTGAAGGCTTGAAGTGCAGAGTT 2040
Dh 1981 TTTCGAAATGCTTAACTTACAGTCAAACTTGAAGGCTTGAAGTGCAGAGTT 2040
Qy 2041 CACCATTTAAGCGAAGGCTCAGAAAGCTGGAACAAAGATTTGCGCATCTCTGATCC 2100
Dh 2041 CACCATTTAAGCGAAGGCTCAGAAAGCTGGAACAAAGATTTGCGCATCTCTGATCC 2100
Qy 2101 CAAGATCATAGCCTTGCCTCAGACATGCTGAATTTCTTCTACTGTGTCATCAAAAAG 2160
Dh 2101 CAAGATCATAGCCTTGCCTCAGACATGCTGAATTTCTTCTACTGTGTCATCAAAAAG 2160
Qy 2161 GAGTGTAAATGAGTGAAGGAGGAGCTGCTCTTCATCTTCTCTGAAGAAAGCTTCTC 2220
Dh 2161 GAGTGTAAATGAGTGAAGGAGGAGCTGCTCTTCATCTTCTCTGAAGAAAGCTTCTC 2220
Qy 2221 TCCCTTCCCTTCCATGAAATGGGCTTATGAGCTCAGAGAGTTGAGAGACGCGACATCC 2280
Dh 2221 TCCCTTCCCTTCCATGAAATGGGCTTATGAGCTCAGAGAGTTGAGAGACGCGACATCC 2280
Qy 2281 CCTTCACATCCAGAGTGGGTGTAGAGATTTTCAACTGCGCAACCTTGTGCTCCACAT 2340
Dh 2281 CCTTCACATCCAGAGTGGGTGTAGAGATTTTCAACTGCGCAACCTTGTGCTCCACAT 2340
Qy 2341 TGAATTTTTTCAAGACCCCATTTCTTCAAGTGTGAAGTGGAGTTGCTGAGCTTGGCAGCT 2400
Dh 2341 TGAATTTTTTCAAGACCCCATTTCTTCAAGTGTGAAGTGGAGTTGCTGAGCTTGGCAGCT 2400

Qy 2401 TTCTTTCCCTCGTCTTGTGACTAGAAACCGGACTTTAATTTCTCAGACAGACTAGCT 2460
Dh 2401 TTCTTTCCCTCGTCTTGTGACTAGAAACCGGACTTTAATTTCTCAGACAGACTAGCT 2460
Qy 2461 GGCATTAATTCCTACTTATGTTCTTCTCTGACCTCTGGAAGAAATCTCTGTATATC 2520
Dh 2461 GGCATTAATTCCTACTTATGTTCTTCTCTGACCTCTGGAAGAAATCTCTGTATATC 2520
Qy 2521 TCTGTAAAGTTTTTGGGGATTAAGGGTGTAAACCACTCCAGCTTCTCTCTCTTTT 2580
Dh 2521 TCTGTAAAGTTTTTGGGGATTAAGGGTGTAAACCACTCCAGCTTCTCTCTCTTTT 2580
Qy 2581 TTTTTCGAAAAAAGAAAAAGACACAGACACATTTCAAGCCATTTTCAGATCAGA 2640
Dh 2581 TTTTTCGAAAAAAGAAAAAGACACAGACACATTTCAAGCCATTTTCAGATCAGA 2640
Qy 2641 ACTCAGAAAGTGTGACAAAGTGTCTATTCGTAGAGTTCCCTCAGAAAGCCATGATGTT 2700
Dh 2641 ACTCAGAAAGTGTGACAAAGTGTCTATTCGTAGAGTTCCCTCAGAAAGCCATGATGTT 2700
Qy 2701 TATGAAGAAAGATGATGATGCTCTGCGAAGAGCTCTCTTTAACTCTCTCTCT 2760
Dh 2701 TATGAAGAAAGATGATGATGCTCTGCGAAGAGCTCTCTTTAACTCTCTCTCT 2760
Qy 2761 CTGATGAATTTCTTAAGGCTGAAGAAATGAAGAGTGGGACATGGGATTAATCTTATC 2820
Dh 2761 CTGATGAATTTCTTAAGGCTGAAGAAATGAAGAGTGGGACATGGGATTAATCTTATC 2820
Qy 2821 CTTTTTGTAAAAAGAGGACGATGGCTGGAGATCATAGCCCTTCTTGAAGAA 2880
Dh 2821 CTTTTTGTAAAAAGAGGACGATGGCTGGAGATCATAGCCCTTCTTGAAGAA 2880
Qy 2881 TCCGTTCATCTGCGAGGCTATGATTAATTAATTTTGAATTTGAATTAATTTCTG 2940
Dh 2881 TCCGTTCATCTGCGAGGCTATGATTAATTAATTTTGAATTTGAATTAATTTCTG 2940
Qy 2941 TTGTTTTCTAAATGTAAAGCTTACCAAAATGAATTTAGTCAATTCCTCAGAGAGAT 3000
Dh 2941 TTGTTTTCTAAATGTAAAGCTTACCAAAATGAATTTAGTCAATTCCTCAGAGAGAT 3000
Qy 3001 TTTTTCCTCTTCTCATCTTTCCTCAAGTGTCTCTCTGTTGTGAGCTTAAGTAAAG 3060
Dh 3001 TTTTTCCTCTTCTCATCTTTCCTCAAGTGTCTCTCTGTTGTGAGCTTAAGTAAAG 3060
Qy 3061 GGGGACACTTCTGTCTGTTTAAACAGACATGTCATATCTGTAGGCGCAGCAAAATTTTCT 3120
Dh 3061 GGGGACACTTCTGTCTGTTTAAACAGACATGTCATATCTGTAGGCGCAGCAAAATTTTCT 3120
Qy 3121 TAAATCATGAGGAGACAGAGATTTCTGCTGGTGAAGGTCATGCTGTGCAATATGTC 3180
Dh 3121 TAAATCATGAGGAGACAGAGATTTCTGCTGGTGAAGGTCATGCTGTGCAATATGTC 3180
Qy 3181 CTACCCCCCTGTCTTCAATGACAGGAGTGAATGAGGAGCTACATATGCTCTCTCC 3240
Dh 3181 CTACCCCCCTGTCTTCAATGACAGGAGTGAATGAGGAGCTACATATGCTCTCTCC 3240
Qy 3241 CCGTCTACAAAGTGTGTTTCTCATGATCTTCACTCTTGTGACAGGAGGAGAGG 3300
Dh 3241 CCGTCTACAAAGTGTGTTTCTCATGATCTTCACTCTTGTGACAGGAGGAGAGG 3300
Qy 3301 GGGCTGTATCTCAGAGAGTGTGAATTCGTGTATTCCTTCTCTTCAACCTG 3360
Dh 3301 GGGCTGTATCTCAGAGAGTGTGAATTCGTGTATTCCTTCTCTTCTTCAACCTG 3360
Qy 3361 CCTTGAATATATGTTAGCCCATACCCCAATTAATGATTAAGACACCCAGCAG 3420
Dh 3361 CCTTGAATATATGTTAGCCCATACCCCAATTAATGATTAAGACACCCAGCAG 3420
Qy 3421 TTTTGTGCTGCTGTCTTGTGCTGACATTTTAAAGAAAGAAATTTCTGCTATT 3480
Dh 3421 TTTTGTGCTGCTGTCTTGTGCTGACATTTTAAAGAAAGAAATTTCTGCTATT 3480

QY 1561 TGGCATATTGACATTTCTACAGTCTTACAGGTTTGTTAAGAAGTGGACACTCTTGGAA 1620
Db 1561 TGGCATATTGACATTTCTACAGTCTTACAGGTTTGTTAAGAAGTGGACACTCTTGGAA 1620
QY 1621 AGCCCTGGTATACAGGAGCACTGTCTCAGTGCATGGCCAGGCTTCTACGCTGAAAG 1680
Db 1621 AGCCCTGGTATACAGGAGCACTGTCTCAGTGCATGGCCAGGCTTCTACGCTGAAAG 1680
QY 1681 GTTCAGAGGCTTCAAGTGCACACAGTATTTAAGAAAGTTCCTTGAAGCCCTTCCCTTC 1740
Db 1681 GTTCAGAGGCTTCAAGTGCACACAGTATTTAAGAAAGTTCCTTGAAGCCCTTCCCTTC 1740
QY 1741 CAAAAGTTTCGTCTGCTGCTATCTTCTCTCGGAGACAGGCTCTCAGTGGCAACTCTCTG 1800
Db 1741 CAAAAGTTTCGTCTGCTGCTATCTTCTCTCGGAGACAGGCTCTCAGTGGCAACTCTCTG 1800
QY 1801 CATTACTTACAGGCACTGCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1860
Db 1801 CATTACTTACAGGCACTGCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1860
QY 1861 AGTGAGGAGGAGGCTTCACTTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1920
Db 1861 AGTGAGGAGGAGGCTTCACTTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1920
QY 1921 GGAATATCAGTGGAGGCTGCTGCTATCTGACCCAGTTTCTCAGCTTATGTTGAGAGAC 1980
Db 1921 GGAATATCAGTGGAGGCTGCTGCTATCTGACCCAGTTTCTCAGCTTATGTTGAGAGAC 1980
QY 1981 TTTTGAATGCTTAACTACAGTACAACTTGGAAAAGCTTGAAGTTGAGAGTCAAGTT 2040
Db 1981 TTTTGAATGCTTAACTACAGTACAACTTGGAAAAGCTTGAAGTTGAGAGTCAAGTT 2040
QY 2041 CACCATTAAAGGAGGAGGCTCAGAGAGCTGGAACAAAGATTTCTGCTGCTGCTGCTGCTGCTG 2100
Db 2041 CACCATTAAAGGAGGAGGCTCAGAGAGCTGGAACAAAGATTTCTGCTGCTGCTGCTGCTGCTG 2100
QY 2101 CAAAGATCAGAGGCTTGGCCCAAGATGCTGAATTTTCTTACTTGTGCTCAAAAAG 2160
Db 2101 CAAAGATCAGAGGCTTGGCCCAAGATGCTGAATTTTCTTACTTGTGCTCAAAAAG 2160
QY 2161 GAGTGTAAATAGAGTGAAGGAGGAGCTGCTCTCATCTTCTCTGAGAAAGAACTTCTCTC 2220
Db 2161 GAGTGTAAATAGAGTGAAGGAGGAGCTGCTCTCATCTTCTCTGAGAAAGAACTTCTCTC 2220
QY 2221 TCCCTCCCTCTCTCAAGAAAGGAGGCTTAAAGGCTTCAAGAGTGAAGAGCCGACAGATCC 2280
Db 2221 TCCCTCCCTCTCTCAAGAAAGGAGGCTTAAAGGCTTCAAGAGTGAAGAGCCGACAGATCC 2280
QY 2281 CCTCCACTCCAGAGTGGGTGGTACGAGATTTTCAACTGGCCAACTTGTGCTCCACTAT 2340
Db 2281 CCTCCACTCCAGAGTGGGTGGTACGAGATTTTCAACTGGCCAACTTGTGCTCCACTAT 2340
QY 2341 TGAATTTTTTCAAGACCCCACTTCTCAAGCTGGAATAGGATGCTGACTTGGCACT 2400
Db 2341 TGAATTTTTTCAAGACCCCACTTCTCAAGCTGGAATAGGATGCTGACTTGGCACT 2400
QY 2401 TTTCTTCCCTCCGCTTGAAGTGAAGACCGGACTTAAATTTTCTCAAGAGACAGTACT 2460
Db 2401 TTTCTTCCCTCCGCTTGAAGTGAAGACCGGACTTAAATTTTCTCAAGAGACAGTACT 2460
QY 2461 GGCACATTTATCCCTACCTTACTTCTTCTCTGACTCCTGGAAGAAATCTCTGTAATC 2520
Db 2461 GGCACATTTATCCCTACCTTACTTCTTCTCTGACTCCTGGAAGAAATCTCTGTAATC 2520
QY 2521 TCTGTAAAGGTTTGGGGGATTAAGGGGTTTAAACCACTCCAGCTTCTCTCTCTT 2580
Db 2521 TCTGTAAAGGTTTGGGGGATTAAGGGGTTTAAACCACTCCAGCTTCTCTCTCTT 2580
QY 2581 TTTTTCGAAAAAGAAAAAGCAACAGACAAATTTTCAAGGCAATTTTCAAGTCA 2640
Db 2581 TTTTTCGAAAAAGAAAAAGCAACAGACAAATTTTCAAGGCAATTTTCAAGTCA 2640
QY 2641 ACTCAGAGTGTGACAAAGATGCTATTTCTAGAGTTCCCTCAGAAAGCAATGTGT 2700

Db 2641 ACTCAGAGTGTGACAAAGATGCTATTTCTAGAGTTCCCTCAGAAAGCAATGTGT 2700
QY 2701 TATGAAGAAAGATGATGATGCTCTGCGCAGAAAGCACTCTCTTAAATCTCTCTCT 2760
Db 2701 TATGAAGAAAGATGATGATGCTCTGCGCAGAAAGCACTCTCTTAAATCTCTCTCT 2760
QY 2761 CTGATGAAATTTCTTAAAGGCTGAAGAAATGAAGAGAGGAGCATGGGGTAACTTATC 2820
Db 2761 CTGATGAAATTTCTTAAAGGCTGAAGAAATGAAGAGAGGAGCATGGGGTAACTTATC 2820
QY 2821 CTTTGTGTTAAACAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 2880
Db 2821 CTTTGTGTTAAACAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 2880
QY 2881 TCTGTGCTCAGTGGAGGCTATGATTAATTAATTAATTAATTAATTAATTAATTAATTA 2940
Db 2881 TCTGTGCTCAGTGGAGGCTATGATTAATTAATTAATTAATTAATTAATTAATTAATTA 2940
QY 2941 TTTGTTTTCTTAAATGTAAGAGCTTACCAATGATTTTAAATGATTTCTCCAGAGAGATT 3000
Db 2941 TTTGTTTTCTTAAATGTAAGAGCTTACCAATGATTTTAAATGATTTCTCCAGAGAGATT 3000
QY 3001 TTTTGTGCTCTTCACTCTTCCAGAGTGTCTCTGTTTGTGAGCTAAGGTAAGA 3060
Db 3001 TTTTGTGCTCTTCACTCTTCCAGAGTGTCTCTGTTTGTGAGCTAAGGTAAGA 3060
QY 3061 GGGGACATTTCTGCTGTTTAAACAGACAGTCCATATCTGAGAGGCAAAATTTTCT 3120
Db 3061 GGGGACATTTCTGCTGTTTAAACAGACAGTCCATATCTGAGAGGCAAAATTTTCT 3120
QY 3121 TAAATCATGGGGAGAGAGAGATTTGCTGCTGAGAGGATTTGCTGAGGAGATGTC 3180
Db 3121 TAAATCATGGGGAGAGAGAGATTTGCTGCTGAGAGGATTTGCTGAGGAGATGTC 3180
QY 3181 CTACCCCTGCTCTTCACTGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3240
Db 3181 CTACCCCTGCTCTTCACTGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3240
QY 3241 CCGTCTACAAAGAGTGTGTTTCACTGATCTTCACTGATCTTCACTGATCTTCACTGAT 3300
Db 3241 CCGTCTACAAAGAGTGTGTTTCACTGATCTTCACTGATCTTCACTGATCTTCACTGAT 3300
QY 3301 GGCCTGATCTCAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3360
Db 3301 GGCCTGATCTCAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3360
QY 3361 CCTGATTAATGTTAGCCCAATACCCCAATTAATTAATTAATTAATTAATTAATTAATTA 3420
Db 3361 CCTGATTAATGTTAGCCCAATACCCCAATTAATTAATTAATTAATTAATTAATTAATTA 3420
QY 3421 TTTGCTGCTGCTGCTTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 3480
Db 3421 TTTGCTGCTGCTGCTTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 3480
QY 3481 TTTTTCATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 3540
Db 3481 TTTTTCATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 3540
QY 3541 TTAGGGTGGAGGAGATTTTGAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3600
Db 3541 TTAGGGTGGAGGAGATTTTGAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 3600
QY 3601 AACATTTTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 3660
Db 3601 AACATTTTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 3660
QY 3661 CAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 3720
Db 3661 CAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 3720

RESULT 3

Qy	1740	CCAAAAGTTTCGGTCTGAGCTCATCTTCTCTGGGAGAGAGGCTCACTGGCAACTCT	1799
Db	1741	CCAAAAGTTTCGGTCTGAGCTCATCTTCTCTGGGAGAGAGGCTCACTGGCAACTCT	1800
Qy	1800	GCATTACTTACACGCATTCGGTCTCTGGGGACAACAAGGCAACAGTGAACAAAGGCG	1853
Db	1801	GCATTACTTACACGCATTCGGTCTCTGGGGACAACAAGGCAACAGTGAACAAAGGCG	1860
Qy	1860	AAGTGGAGCCAGGGGCTTCACTTGGTGTGTCTGAATGTTTACCTCAGACTCCACTTTGG	1919
Db	1861	AAGTGGAGCCAGGGGCTTCACTTGGTGTGTCTGAATGTTTACCTCAGACTCCACTTTGG	1920
Qy	1920	AGAAATCATGAGGAGGCTGCGCTATTCTCAGACCCAGTTTCTCACTCTAGTTGGAGAG	1979
Db	1921	AGAAATCATGAGGAGGCTGCGCTATTCTCAGACCCAGTTTCTCACTCTAGTTGGAGAG	1980
Qy	1980	CTTTGCAAAATGCTAACAAGTACAACTTGGAAAAGCTTGAAGTTGACAGTCAAGT	2039
Db	1981	CTTTGCAAAATGCTAACAAGTACAACTTGGAAAAGCTTGAAGTTGACAGTCAAGT	2040
Qy	2040	TCACCATTAAAGCCAAAGCTCAGAAAGCCTGGAAACAGATTTGTCATCTCTGTGATC	2099
Db	2041	TCACCATTAAAGCCAAAGCTCAGAAAGCCTGGAAACAGATTTGTCATCTCTGTGATC	2100
Qy	2100	CCAGAATGTCAGCCCTTGCCCGAGCAATGCTGAATTTTCTCTACTTGGTCAATCAAAAA	2155
Db	2101	CCAGAATGTCAGCCCTTGCCCGAGCAATGCTGAATTTTCTCTACTTGGTCAATCAAAAA	2160
Qy	2160	GAGGTGTAATGAGATGAGGGGAGCTGCTCTCATCTTCTTCTGAAGAAACCTTCT	2219
Db	2161	GAGGTGTAATGAGATGAGGGGAGCTGCTCTCATCTTCTTCTGAAGAAACCTTCT	2220
Qy	2220	CTCCTTCTCTTCTCATGAATGGAGCTTAGTGTCTCAGAGATTGAGAACCGCAGCATC	2279
Db	2221	CTCCTTCTCTTCTCATGAATGGAGCTTAGTGTCTCAGAGATTGAGAACCGCAGCATC	2280
Qy	2280	CCCTCCACTCCAGAGTTGGGTGGTGAAGGATTTTCAACTGGCAACCTTTGGCTCACTA	2339
Db	2281	CCCTCCACTCCAGAGTTGGGTGGTGAAGGATTTTCAACTGGCAACCTTTGGCTCACTA	2340
Qy	2340	TTGAATTTTTCAGACCCCACTTCTCATGCTGAAATGGGATTTGCTGGACTTGGCAGC	2399
Db	2341	TTGAATTTTTCAGACCCCACTTCTCATGCTGAAATGGGATTTGCTGGACTTGGCAGC	2400
Qy	2400	TTTCTTTCCCTGCTCTTGAATGAGAACCGGACTCTTAATTTCTCAGACAGACTAGC	2455
Db	2401	TTTCTTTCCCTGCTCTTGAATGAGAACCGGACTCTTAATTTCTCAGACAGACTAGC	2460
Qy	2460	TGGCACAATTAACCTTACCTTAATGTTCTTCTCTGACTCTGGAAGAAATCTCTGAAT	2519
Db	2461	TGGCACAATTAACCTTACCTTAATGTTCTTCTCTGACTCTGGAAGAAATCTCTGAAT	2520
Qy	2520	CTCTGTAAGGTTTTTGGGGGATPAAGGGTGTAAACAATCCACATCCAGCTTCTCTTCTT	2579
Db	2521	CTCTGTAAGGTTTTTGGGGGATPAAGGGTGTAAACAATCCACATCCAGCTTCTCTTCTT	2580
Qy	2580	TTTTTTTTCTGAAAAAAGAAAAAGCACACAGCACACAATTTCAAGCATTTTCAGATAG	2639
Db	2581	TTTTTTTTCTGAAAAAAGAAAAAGCACACAGCACACAATTTCAAGCATTTTCAGATAG	2640
Qy	2640	AACTCCAGAAAGTTTGAACAAGATGCCATAATCTGAAGAGTTCCCTCAGAAAAGCAGTGT	2699
Db	2641	AACTCCAGAAAGTTTGAACAAGATGCCATAATCTGAAGAGTTCCCTCAGAAAAGCAGTGT	2700
Qy	2700	TTATGAAGAGAAAGTGTGTATTTGCTCTGCAAGAGAGTCTCTTTTAACTCCCTCCTC	2755
Db	2701	TTATGAAGAGAAAGTGTGTATTTGCTCTGCAAGAGAGTCTCTTTTAACTCCCTCCTC	2760
Qy	2760	TCTTGATGATTTTCTTAAAGCTGAAGAAATGAAGAGTGGGACATGGGTATCTTTAT	2819
Db	2761	TCTTGATGATTTTCTTAAAGCTGAAGAAATGAAGAGTGGGACATGGGTATCTTTAT	2820
Qy	2820	CCCTTTTGTAAAAACAGAGGCAAGCACTGGGCTGGGAGATCATAGCCCTTTCCTAGGCA	2879

D	2821	CCCTTTGTTTAAACAGAGGACGACCATGGGCTGGGAAATCATACCTCTTCTTAGGGACG
Q	2880	ATCCGTTCACCTGCCAGGCTAATGTAATTATTACTAATTTGCAATTTGAAATATAATCTC
D	2881	ATCCGTTCACCTGCCAGGCTAATGTAATTATTACTAATTTGCAATTTGAAATATAATCTC
Q	2940	GTTGTTTTTCTAATAGTGAAGACTTACCAAAATGAATTTTAAATCAATTCCTCCAGAGGAGA
D	2941	GTTGTTTTTCTAATAGTGAAGACTTACCAAAATGAATTTTAAATCAATTCCTCCAGAGGAGA
Q	3000	TTTTTTGCTCTTCTCATCTTTTCCAAAGTTCCTCGTTTGTGAGACTAAGTAA
D	3001	TTTTTTTGCTCTTCTCATCTTTTCCAAAGTTCCTCGTTTGTGAGACTAAGTAA
Q	3060	AGGGAGACATTCGTCTGTCTGTTTAAACAGACGTCAATCTGTGAGGCCAGCAATTTTT
D	3061	AGGGAGACATTCGTCTGTCTGTTTAAACAGACGTCAATCTGTGAGGCCAGCAAAATTTTT
Q	3120	TTTAAATCATAGGGGAAACAGACGATTCCTTGCCCTGGTAGGTCATTTGCTGGCAATAG
D	3121	TTTAAATCATAGGGGAAACAGACGATTCCTTGCCCTGGTAGGTCATTTGCTGGCAATAG
Q	3180	CCTAACCCCCCTGTCTTCAATGACAGGAAAGTTGGAAAATGGGGGCTACATATGSCCTCTCT
D	3181	CTTATCCCCCTGTCTTCAATGACAGGAAAGTTGGAAAATGGGGGCTACATATGSCCTCTCT
Q	3240	CCGCTTACAAAGATTGTGGTTTTCATCTGAATCCTTCACCTTTGTCAAGGAGAAAG
D	3241	CCGCTTACAAAGATTGTGGTTTTCATCTGAATCCTTCACCTTTGTCAAGGAGAAAG
Q	3300	GGGCGTGGTATCTCAAGGACGATTTGTTGAATTCCTGTCTATCCCTCTCTATCCCAACC
D	3301	GGGCGTGGTATCTCAAGGACGATTTGTTGAATTCCTGTCTATCCCTCTCTATCCCAACC
Q	3360	GCCGTGATTAATGTTAGGCCATATCCCAAATACGTCTATATATAGACACCCGAGCC
D	3361	GCCGTGATTAATGTTAGGCCATATCCCAAATACGTCTATATATAGACACCCGAGCC
Q	3420	GTTTCTGCGCTGCTGTCTTTCGTCGCCATGTTTTTTCAAAGAAAGAAAGATTTCTTGCTA
D	3421	GTTTCTGCGCTGCTGTCTTTCGTCGCCATGTTTTTTCAAAGAAAGAAAGATTTCTTGCTA
Q	3480	TTTTTTTTCAATTAATTAATTAATTAATGATTTTAAAGTTTATTAAGACAGAGTCC
D	3481	TTTTTTTTCAATTAATTAATTAATTAATGATTTTAAAGTTTATTAAGACAGAGTCC
Q	3540	GTTAGGGGTGGAGGAAATTTGAGGAGGGCTGGGTCTTAGGGAAGGAATGGGGA
D	3541	GTTAGGGGTGGAGGAAATTTGAGGAGGGCTGGGTCTTAGGGAAGGAATGGGGA
Q	3600	CAACATTTTATTAAGTGTACTAATTTGCTCTACCTTGTATTTGCAAAATGGCAAA
D	3601	CAACATTTTATTAAGTGTACTAATTTGCTCTACCTTGTATTTGCAAAATGGCAAA
Q	3660	ACATATAAAGATAGATATAGTTTAAATGTAATAAATTTAATAGATTAATTA 3713
D	3661	ACATATAAAGATAGATATAGTTTAAATGTAATAAATTTAATAGATTAATTA 3714

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RESULT 4
US-09-770-175--8633
: Sequence 8633, Application US/09770175
: GENERAL INFORMATION:
: APPLICANT: Gearing, David P.
: APPLICANT: Holzman, Douglas A.
: TITLE OF INVENTION: NOVEL NUCLEIC ACID MOLECULES AND USES
: TITLE OF INVENTION: THEREFOR
: FILE REFERENCE: 1600.2058-001
: CURRENT APPLICATION NUMBER: US/09/770,175
: CURRENT FILING DATE: 2001-01-26
: PRIORITY APPLICATION NUMBER: US 60/178,874
: PRIORITY FILING DATE: 2000-01-28

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: NUMBER OF SEQ ID NOS: 8967
: SOFTWARE: FastSeq for Windows Version 4.0
: SEQ ID NO: 863
: LENGTH: 4264
: TYPE: DNA
: ORGANISM: Homo sapiens
: OS-09-770-175-8633

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Query Match 99.4%; Score 3690.8; DB 30; Length 4264;

[illegible]

Db	1373	GTTCCTATTCTATGTGTGTCCAGGACGATGAGTTCAATTATTAGACAGTCCAACTAAAG	1432
Qy	960	AGGCGGAATTTCTGCGAAGAGCTGCTTCCAGGATATCATGAACCTTCACAGAACCTTC	1019
Db	1433	AGGGGGAATTTCTGCAAGAGCTGCTTCCAGGATATCTACATGAACCTTCACACAAACCTTC	1492
Qy	1020	GGAATTGTGCTGCTTAATTTCTATGACATGTATCTGTGTGCGAGGCGAGGTGGCAAGACATTC	1079
Db	1493	GGACTTGTGCTGCTTAATTTCTATGACATGTATCTGTGTGCGAGGCGAGGTGGCAAGACATTC	1552
Qy	1080	GGATTGTGATGATGAACAATCTTTTATCCAAAGTCTGTAAATAATGCAATATCAATATGAC	1139
Db	1553	GGATTGTGATGATGAACAATCTTTTATCCAAAGTCTGTAAATAATGCAATATCAATATGAC	1612
Qy	1140	TCAAAAGCTCAACCTTACAAACGCGCGGCTTCCCAAGAAAGCCGAGAGACCTTCCCA	1199
Db	1613	TCAAAAGCTCAACCTTACAAACGCGCGGCTTCCCAAGAAAGCCGAGAGACCTTCCCA	1672
Qy	1200	CATTAAAGACCTTGAACCTTCTTAAAGACATCCCGATGATCTTTTGTGATGCTGACA	1259
Db	1673	CATTAAAGACCTTGAACCTTCTTAAAGACATCCCGATGATCTTTTGTGATGCTGACA	1732
Qy	1260	TGTACAAAGCTCTCTGTGAAGACCTTCGACAGCTGACCTGTTGTGCTCGAAGCTTCAGA	1319
Db	1733	TGTACAAAGCTCTCTGTGAAGACCTTCGACAGCTGACCTGTTGTGCTCGAAGCTTCAGA	1792
Qy	1320	TAAATGATTAACAGCTCTGATGATGATCAATCAATATATGATATGACCAACAGAGGCTT	1379
Db	1793	TAAATGATTAACAGCTCTGATGATGATCAATCAATATATGATATGACCAACAGAGGCTT	1852
Qy	1380	TAAAGAGTGAACACAGTACTCAGTTGATATCTGAAAGACCGGCCCCCAAAAGGCTCTGT	1439
Db	1853	TAAAGAGTGAACACAGTACTCAGTTGATATCTGAAAGACCGGCCCCCAAAAGGCTCTGT	1912
Qy	1440	ATTCCAACGCCATGGAATTCATCTCAGGAGAGAGGCTCGACGGGTGTGATCAATGGAAGCTG	1499
Db	1913	ATTCCAACGCCATGGAATTCATCTCAGGAGAGAGGCTCGACGGGTGTGATCAATGGAAGCTG	1972
Qy	1500	ATGACCAATATGGGTGGGATCCCTGACCCGGAATATGTAAGGGGAAAGGCTTCGCTTTATA	1559
Db	1973	ATGACCAATATGGGTGGGATCCCTGACCCGGAATATGTAAGGGGAAAGGCTTCGCTTTATA	2032
Qy	1560	TTGGCATCATTGACATTTCTACAGTCTTTAAGGTTTGTTAAGAGTTGGAAGACTCTTTGGA	1619
Db	2033	TTGGCATCATTGACATTTCTACAGTCTTTAAGGTTTGTTAAGAGTTGGAAGACTCTTTGGA	2092
Qy	1620	AAGCCCTGTATCAGAGGAGACACTGTCTCATGTGATCGCCAGGCTTCTAAGCTGTAAC	1679
Db	2093	AAGCCCTGTATCAGAGGAGACACTGTCTCATGTGATCGCCAGGCTTCTAAGCTGTAAC	2152
Qy	1680	GGTTCACAGCGCTTATGATGCAACAGTATTTAAGAGATTCCTTGAAGGCTTCTCTCT	1739
Db	2153	GGTTCACAGCGCTTATGATGCAACAGTATTTAAGAGATTCCTTGAAGGCTTCTCTCT	2212
Qy	1740	CCAAAAAGTTTCGGTCTGCGTCAATCTTTCTCTCCGGGAGACAGGCTCCAGTGGCAACTCT	1799
Db	2213	CCAAAAAGTTTCGGTCTGCGTCAATCTTTCTCTCCGGGAGACAGGCTCCAGTGGCAACTCT	2272
Qy	1800	GCATTACTTACACAGCCATCGGCTCTTGGGAGACAAAGGACAAAGTGAACAACAAAGGAG	1859
Db	2273	GCATTACTTACACAGCCATCGGCTCTTGGGAGACAAAGGACAAAGTGAACAACAAAGGAG	2332
Qy	1860	AAGTGAAGCAGGCGTTCACCTTGTGTCTGTATGTTTATCTCAAGCTCCACTTTTGG	1919
Db	2333	AAGTGAAGCAGGCGTTCACCTTGTGTCTGTATGTTTATCTCAAGCTCCACTTTTGG	2392
Qy	1920	AGGAATATCAGAGGAGCTCGCTATTCCTGAACCCAGTTTCTCACCTCTAATGTGAGAGA	1979
Db	2393	AGGAATATCAGAGGAGCTCGCTATTCCTGAACCCAGTTTCTCACCTCTAATGTGAGAGA	2452
Qy	1980	CTTTCGAATGCTAATCAAGTACAACTTGAAGGCTTGAAGTTCAGTCAAGT	2039

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773 ACGGGGTTCTGTAAAGAGACGTTGGGAGATTCGATTCGAGAGAGAGAGACCGGAT 832
QY
360 TGAAGAGAGACGACGGCGCTGAGGGGAGGGGCTGCTAAAGATGGCGTCCGCTCTCCG 419
Db
833 TGAAGAGAGACGACGGCGCTGAGGGGAGGGGCTGCTAAAGATGGCGTCCGCTCTCCG 892
QY
420 GCGCGTCTCTCGGTGGTCTTTCATCTCTTGTATCCCGGGTCCCTTCTCTGTACCTGT 479
Db
893 GCGCGTCTCTCGGTGGTCTTTCATCTCTTGTATCCCGGGTCCCTTCTCTGTACCTGT 952
QY
480 CCTCAGCATCTGGAAATCAAGAGACCCATGSCATCTGAGGTGCCTTATGCTCTCTGGCATGC 539
Db
953 CCTCAGCATCTGGAAATCAAGAGACCCATGSCATCTGAGGTGCCTTATGCTCTCTGGCATGC 1012
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540 CCATCAAGAAAATAGGCATAGAGTGTGATTCCTCAGGAGAGACAACATATAAAAAGA 599
Db
1013 CCATCAAGAAAATAGGCATAGAGTGTGATTCCTCAGGAGAGACAACATATAAAAAGA 1072
QY
600 CAACCTCATCAGCCTTGAAAGGTGCCATCCAGTTAGGCATTTACCACACTGTGGGAGCC 659
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1073 CAACCTCATCAGCCTTGAAAGGTGCCATCCAGTTAGGCATTTACCACACTGTGGGAGCC 1132
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1133 TGAGTACCACCAACAGAGCGTGCATCTCTCTCAAGCAATTTCTAGCTGGTTGAGAGTATCT 1192
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1193 TCTTTCCAGTGAAGGAGCAACCTGACCCCTGCTCATCACTACAATGACTTTCGTTTCA 1252
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Db
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Db
1433 AGGCGGAATTTCTCAGAGCTGCTTCCAGGATCTCATCACTCACTCAACAGACCCCTC 1492
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1673 CATTTAAAGACCTAGACTTTCTTACAGACATCCCTGTATGGTCTTTTTTGGATGCTGACA 1732
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1380 TAAGCAGTGAACACAGATGACTCAGTTGATCTCGAAGACCGGCGCCCGCCAAAGGCTCTGT 1439
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Db
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Db
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Db
2933 TGGCACATTAATCCTTACTTGTCTTCTCTGACTCTCTGGAAGAAATCTCTCTGTAAT 2992
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Qy 1200 CATTTAAAGACTAGACTTCTTAAAGACATCCCTGATGCTTTTGGATGCTGACA 1259
Db 1673 CATTTAAAGACTAGACTTCTTAAAGACATCCCTGATGCTTTTGGATGCTGACA 1732
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Db 3893 CAGTTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3952
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RESULT 8

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US-09-726-802-2146
; Sequence 2146, Application US/09726802
; GENERAL INFORMATION:
; APPLICANT: Acton, Susan L.
; APPLICANT: Palb, Dean A.
; APPLICANT:
; TITLE OF INVENTION: NOVEL NUCLEIC ACID MOLECULES AND USES
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; TITLE OF INVENTION: THEREFOR
; FILE REFERENCE: 1600.2025-001
; CURRENT APPLICATION NUMBER: US/09/726,802
; PRIOR FILING DATE: 2000-11-30
; PRIOR APPLICATION NUMBER: 60/168,012
; PRIOR FILING DATE: 1999-11-30
; NUMBER OF SEQ ID NOS: 2872
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2146
; LENGTH: 4266
; TYPE: DNA
; ORGANISM: Homo sapiens
; US-09-726-802-2146
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Query Match 99.1%; Score 3678.4; DB 29; Length 4266;
Best Local Similarity 99.9%; Pred. No. 0;
Matches 3712; Conservative 0; Mismatches 1; Indels 3; Gaps 3;
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Db 533 TGCTCTGTTTTTTTTTTCAGATGTGGCTTCTGGGCGCAAGGTCCCGAGCAGCCAGCTTA 592
QY 121 AGCTTACTCTTCTGTGAAAGGGGAAAGATATCCCTCTGTGGAAGCGGTAAACTTGTGGAG 180
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Db 833 TGAAGAGAGCCAGGCCGCTGAGGGGAGGGGCTGCTAAGATGGCGTCCGCTCTCTCCG 892
QY 420 GGCCTGCTCTTCGCTCGGTTTTTTCATCTTTCATCCCGGGTCCCTTCCTGTACCTTGT 479
Db 893 GGCCTGCTCTTCGCTCGGTTTTTTCATCTTTCATCCCGGGTCCCTTCCTGTACCTTGT 952
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QY 900 GTTCCCTATTCTATGTCTCCAGGACGATGAGTTCAATTAATAAGACAGTCCAAACATAAAG 959
DB 1373 GTTCCCTATTCTATGTCTCCAGGACGATGAGTTCAATTAATAAGACAGTCCAAACATAAAG 1432
QY 960 AGGCGGAATTTCTGCAAGAGTGTCTCCAGGATCTACTGATCAATGAACTCAACGAGACCCCTC 1019
DB 1433 AGGCGGAATTTCTGCAAGAGTGTCTCCAGGATCTACTGATCAATGAACTCAACGAGACCCCTC 1492
QY 1020 GGAATTTGTGCTTAAATCTATGCACTGTACTGTGTGCGAGGAGGTGGCAAGAACATTC 1079
DB 1493 GGAATTTGTGCTTAAATCTATGCACTGTACTGTGTGCGAGGAGGTGGCAAGAACATTC 1552
QY 1080 GGAATTTGTGCTTAAATCTTATCAAGATCGGTAAATAATGCAATCAATATATGAC 1139
DB 1553 GGAATTTGTGCTTAAATCTTATCAAGATCGGTAAATAATGCAATCAATATATGAC 1612
QY 1140 TCAAGGCTCAACCTA CAAGCGGGGCTTCCAGAAAGAGCGAGAGGCTCTTCCCA 1199
DB 1613 TCAAGGCTCAACCTA CAAGCGGGGCTTCCAGAAAGAGCGAGAGGCTCTTCCCA 1672
QY 1200 CATTTAAGACCTAGACTCTTCAAGACATCCCTGATGCTTTTGTGATGCTGACA 1259
DB 1673 CATTTAAGACCTAGACTCTTCAAGACATCCCTGATGCTTTTGTGATGCTGACA 1732
QY 1260 TGTACAAAGCTCTCTGTAAGACCTCTGAGCGTGAATGTTTGTGCTGAGAGCTTCAAGA 1319
DB 1733 TGTACAAAGCTCTCTGTAAGACCTCTGAGCGTGAATGTTTGTGCTGAGAGCTTCAAGA 1792
QY 1320 TAATGGAATTAAGCTCTGTAAGATCAATCAATATATATGATCATGCAAGGAGCGCT 1379
DB 1793 TAATGGAATTAAGCTCTGTAAGATCAATCAATATATATGATCATGCAAGGAGCGCT 1852
QY 1380 TAAGCAGTGAACACAGTACTGATGATCAATCAATATATATGATCATGCAAGGAGCGCT 1439
DB 1853 TAAGCAGTGAACACAGTACTGATGATCAATCAATATATATGATCATGCAAGGAGCGCT 1912
QY 1440 ATTCCACAGCCATGGAATCCATCCAGGAGAGGCTCGAGCGGTGGTACCATGAGACTG 1499
DB 1913 ATTCCACAGCCATGGAATCCATCCAGGAGAGGCTCGAGCGGTGGTACCATGAGACTG 1972
QY 1500 ATGACCATATGGTGGCATCCCTGCGCGAATAGTAAAGGGGAAGGCTTCTGCTTTATA 1559
DB 1973 ATGACCATATGGTGGCATCCCTGCGCGAATAGTAAAGGGGAAGGCTTCTGCTTTATA 2032
QY 1560 TTGGCATCATTTGACATTTACAGTCTTACAGTCTTGTAAAGGTTGGAGCACTCTTGA 1619
DB 2033 TTGGCATCATTTGACATTTACAGTCTTGTAAAGGTTGGAGCACTCTTGA 2092
QY 1620 AAGCCCTGATATACAGCGAGACACTGTCTCAGTGCATCGCCAGGCTTTCACGCTGAAC 1679
DB 2093 AAGCCCTGATATACAGCGAGACACTGTCTCAGTGCATCGCCAGGCTTTCACGCTGAAC 2152
QY 1680 GGTTCAGCGCTTCAATGTCACACAGTATTTAAGAGATTTCCCTTGAAGCTTCTCCTT 1739
DB 2153 GGTTCAGCGCTTCAATGTCACACAGTATTTAAGAGATTTCCCTTGAAGCTTCTCCTT 2212
QY 1740 CCAAAAAGTTTCGGTCTGCTCATCTTCTCTCGGCGAGCAGGCTCCAGTGGCACTCT 1799
DB 2213 CCAAAAAGTTTCGGTCTGCTCATCTTCTCTCGGCGAGCAGGCTCCAGTGGCACTCT 2272
QY 1800 GCATTAATTACAGCCATCGGTCTCTGGGGAACA CAAGGCAAGTGAACA CAAGGCGAG 1859
DB 2273 GCATTAATTACAGCCATCGGTCTCTGGGGAACA CAAGGCAAGTGAACA CAAGGCGAG 2332
QY 1860 AAGTGGAGCGGCTTCACTTGGTCTGCTGATGTTTACCTCAGACTCCACCTTTGG 1919
DB 2333 AAGTGGAGCGGCTTCACTTGGTCTGCTGATGTTTACCTCAGACTCCACCTTTGG 2392

QY 1920 AGGAATCAGTGAAGGCTCGCTATTCTGACCCAGTTTCTCACTCTAGTTGGAGAGA 1979
DB 2393 AGGAATCAGTGAAGGCTCGCTATTCTGACCCAGTTTCTCACTCTAGTTGGAGAGA 2452
QY 1980 CTTTGAATGCTAATCAAGTACAACCTTTGGAAAGCTTGAAGTTGCAGAGTCAGAGT 2039
DB 2453 CTTTGAATGCTAATCAAGTACAACCTTTGGAAAGCTTGAAGTTGCAGAGTCAGAGT 2512
QY 2040 TCACCCATTAAGCGCAAGCTTCAGAGAAGCTTGAAGAAAGATTTCTGCTGATC 2099
DB 2513 TCACCCATTAAGCGCAAGCTTCAGAGAAGCTTGAAGAAAGATTTCTGCTGATC 2572
QY 2100 CCAAGATGTCAGCCCTTGGCCAGCAATGCTGAATTTCTTCTACTTGGTCAATCAAAAA 2159
DB 2573 CCAAGATGTCAGCCCTTGGCCAGCAATGCTGAATTTCTTCTACTTGGTCAATCAAAAA 2632
QY 2160 GGAGTGAATAGAGTGAAGGAGGAGCTGCTCTCCATCTTCTTCTGGAAGAGAAGCTTCT 2219
DB 2633 GGAGTGAATAGAGTGAAGGAGGAGCTGCTCTCCATCTTCTTCTGGAAGAGAAGCTTCT 2692
QY 2220 CTCCTTCTCTTCTCATGAATGGGCTTTAGTGCTCTCAGAGAGTTGAGGACCGCAGCATC 2279
DB 2693 CTCCTTCTCTTCTCATGAATGGGCTTTAGTGCTCTCAGAGAGTTGAGGACCGCAGCATC 2752
QY 2280 CCTCCACTCCAGAGTGGGTGCTAAGGATTTCAACTGGCCAAAGCTTTGGCTCCACTA 2339
DB 2753 CCTCCACTCCAGAGTGGGTGCTAAGGATTTCAACTGGCCAAAGCTTTGGCTCCACTA 2812
QY 2340 TTGAATTTTTCAGACCCCATCTTCAATGCTGGAATGGGATTTGCTGAGCTTGGCAGC 2399
DB 2813 TTGAATTTTTCAGACCCCATCTTCAATGCTGGAATGGGATTTGCTGAGCTTGGCAGC 2872
QY 2400 TTTCTTTTCCCTCGTCTTTGAATAGGAACCGGACTCTTAATTTTCTCAGGACAGACTAGC 2459
DB 2873 TTTCTTTTCCCTCGTCTTTGAATAGGAACCGGACTCTTAATTTTCTCAGGACAGACTAGC 2932
QY 2460 TGGCAATTAATCCCTACCTTGTGTTCTCTGAGCTCTGGAAGAAATCTCTCTGTAAT 2519
DB 2933 TGGCAATTAATCCCTACCTTGTGTTCTCTGAGCTCTGGAAGAAATCTCTCTGTAAT 2992
QY 2520 CTCGTAAAGGTTTTTGGGGGATTAAGGTTTAAACCTCCAGCTTTCTTCTTCTTCTT 2578
DB 2993 CTCGTAAAGGTTTTTGGGGGATTAAGGTTTAAACCTCCAGCTTTCTTCTTCTTCTT 3052
QY 2579 TTTTCTTTCTGAAAAAGGAAAAAGCACAGCACACAAATTTCAAGCCATTTTCAGATCA 2638
DB 3053 TTTTCTTTCTGAAAAAGGAAAAAGCACAGCACACAAATTTCAAGCCATTTTCAGATCA 3112
QY 2639 GAACTCCAGAAAGTTGACAAAGATGCTTAATCTGAGTTCCCTCAGAGAGCCATGGTG 2698
DB 3113 GAACTCCAGAAAGTTGACAAAGATGCTTAATCTGAGTTCCCTCAGAGAGCCATGGTG 3172
QY 2699 TTTATGAAGAGAGAGTGTGATTTGCTCTGCCAGAGAGCTCTCTTTTAACTCTCTCT 2758
DB 3173 TTTATGAAGAGAGAGTGTGATTTGCTCTGCCAGAGAGCTCTCTTTTAACTCTCTCT 3232
QY 2759 CTCTTGATGAATTTCTTAAGGCTGAAGGATGAAGAGAGTGGGACATGGGGTAAATCTTTA 2818
DB 3233 CTCTTGATGAATTTCTTAAGGCTGAAGGATGAAGAGAGTGGGACATGGGGTAAATCTTTA 3292
QY 2819 TCCTTTTGTAAAAACAGGAGGAGCCATGGGCTGGGAGATCATAGCCCTTCTCAGGAG 2878
DB 3293 TCCTTTTGTAAAAACAGGAGGAGCCATGGGCTGGGAGATCATAGCCCTTCTCAGGAG 3352
QY 2879 AATCCCTGCTCACTGCCAGGCTATAGTAAATTTACTATTTTGAATTTGAAATATATTTCT 2938
DB 3353 AATCCCTGCTCACTGCCAGGCTATAGTAAATTTACTATTTTGAATTTGAAATATATTTCT 3412
QY 2939 GGTGTGTTTTCTAAATGTGAAGACTTACCAAAATCAATTTTGTAGATCATTTCTCCAGAGAGA 2998
DB 3413 GGTGTGTTTTCTAAATGTGAAGACTTACCAAAATCAATTTTGTAGATCATTTCTCCAGAGAGA 3472
QY 2999 -TTTTTTTTTGTCTCTCTCACTCTTTTCCACAGTGTCTTCTCTGTTTGGAGCTAAAGTAA 3057

1553 GGAATGGTGAATGAACAAATCTTTTACCAAGATCGGTAAATAATGCAATATCAAAATATGACC 1612
1140 TCAAGAGCTCAACCTCAAAAGCGGGCTTCCAGAAAGAGCGAGAGAGAGCTCTTCCCA 1199
1613 TCAAGGCTCAACCTCAAAAGCGGGCTTCCAGAAAGAGCGAGAGAGCTCTTCCCA 1672
1200 CATTTAAAGACCTAGAGCTTTTCAAGAGACATCCCTGATGCTCTTTTGGATGCTGACA 1259
1673 CATTTAAAGACCTAGAGCTTTTCAAGAGACATCCCTGATGCTCTTTTGGATGCTGACA 1732
1260 TGTACAGGCTCTCTGTAAAGACCTGAGAGCTGCTCTTTGGTGTGAGAGCTTCAAGA 1319
1733 TGTACAGGCTCTCTGTAAAGACCTGAGAGCTGCTCTTTGGTGTGAGAGCTTCAAGA 1792
1320 TAATGGATTTACAGCTCTCTGATGCTCAATCAATATATAGATCATGCAACACGAGAGCCCT 1379
1793 TAATGGATTTATAGCTCTCTGATGCTCAATCAATATATAGATCATGCAACACGAGAGCCCT 1852
1380 TAAGCAGTGAACACAGTACTCAGTGTGATCTCGAAGACCGGCCCCCAAAAGGCTCTGT 1439
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1440 ATTCACAGGCTCAATCCATCCAGGAGAGGCTCGACGGGGTGTACCATGGAGACTG 1499
1913 ATTCACAGGCTCAATCCATCCAGGAGAGGCTCGACGGGGTGTACCATGGAGACTG 1972
1500 ATGACCATATGGGTGGCATCCCTCCCGGAATAGTAAGGGGAAAGGCTTCTGCTTTATA 1559
1973 ATGACCATATGGGTGGCATCCCTCCCGGAATAGTAAGGGGAAAGGCTTCTGCTTTATA 2032
1560 TTGGCATATGACATCTACAGTCTTACAGTGTGTTAGAGTGTGGAGCACTCTGGA 1619
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2093 AAGCCCTGTATACATGACGAGACACTGTCTCAGTGCATCGCCAGGCTTCTACGCTCAAC 2152
1680 GGTTCACAGGCTTCATGTCGAACACAGTATTTAAGAGATTCCTTGAAGCTTCTCCTT 1739
2153 GGTTCACAGGCTTCATGTCGAACACAGTATTTAAGAGATTCCTTGAAGCTTCTCCTT 2212
1740 CCAAAAGTTTCGTCTGGCTCATCTTCTCGCGAGCAGGCTCCAGTGGCACTCCT 1799
2213 CCAAAAGTTTCGTCTGGCTCATCTTCTCGCGAGCAGGCTCCAGTGGCACTCCT 2272
1800 GCATTACTTTACAGGCTATCGGTCTCTGGGGAACACAAAGGCAAAAGGCGAG 1859
2273 GCATTACTTTACAGGCTATCGGTCTCTGGGGAACACAAAGGCAAAAGGCGAG 2332
1860 AAGTGGAGCGAGGCTTCACTTGTGCTGCTGATGTTTACCTCAGACTCCACTTTGG 1919
2333 AAGTGGAGCGAGGCTTCACTTGTGCTGCTGATGTTTACCTCAGACTCCACTTTGG 2392
1920 AGGAATCAGTGGAGGCTCGCTATCTCTGACCCAGTCTTCTCAGTCTAGTGGAGAGA 1979
2393 AGGAATCAGTGGAGGCTCGCTATCTCTGACCCAGTCTTCTCAGTCTAGTGGAGAGA 2452
1980 CTTTGCAAATGTAACAAAGTACAACTTTGGAAAGCTTGAAGTTCAGAGTCAAGT 2039
2453 CTTTGCAAATGTAACAAAGTACAACTTTGGAAAGCTTGAAGTTCAGAGTCAAGT 2512
2040 TCACCCATTAAGCGAAGGCTCAGAGACCTGGAAGATTCGCTATCTGTGATC 2099
2513 TCACCCATTAAGCGAAGGCTCAGAGACCTGGAAGATTCGCTATCTGTGATC 2572
2100 CCAAGATGTCAGGCTTGGCCCGAGCAATGCTGAAATTTCTTCTACTGCTCATCAAAA 2159
2573 CCAAGATGTCAGGCTTGGCCCGAGCAATGCTGAAATTTCTTCTACTGCTCATCAAAA 2632
2160 GGAGTGTAAAGAGTGGAGGAGTGTCTCTCCATCTTCTTCTGGAAGAGACCTTCT 2219

2633 GGAATGTAAATAGAGTGGAGGAGCTGCTCCTCATCTTCTTCTGGAAGAGAACCTTCT 2692
2220 CTCCTTCTCTTCTCTCATGAATGGGCTTAGTCTCAGAGAGTGGAGCGGAGCATC 2279
2693 CTCCTTCTCTTCTCTCATGAATGGGCTTAGTCTCAGAGAGTGGAGCGGAGCATC 2752
2280 CCTCCACTCCAGAGTGGGTGATGATTTCACTGGGCAACCTTTGCTCCACTA 2339
2753 CCTCCACTCCAGAGTGGGTGATGATTTCACTGGGCAACCTTTGCTCCACTA 2812
2340 TTGAATTTTTTTTTCAGACCCCTTCTCATGCTGGAATGGAATGCTGGAGCTTGGAGC 2399
2813 TTGAATTTTTTTTTCAGACCCCTTCTCATGCTGGAATGGAATGCTGGAGCTTGGAGC 2872
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2873 TTTCTTTCCCTCTGCTTGTAGTAGGACCGGACTCTTAATTTCTCAGGACAGACTAGC 2932
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2933 TGGCACATTTATCCCTACCTTCTCTCTGACTCTCTGGAAGAAATPACTCTGTAAAT 2992
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2579 TTTTCTTCTGTAAGAAAGGAAAGACACACAGACACAAATTTCAAGCCATTTTCAGATCA 2638
3053 TTTTCTTCTGTAAGAAAGGAAAGACACACAGACACAAATTTCAAGCCATTTTCAGATCA 3112
2639 GAACTCCAGAGTGTGTAAGAGTCTTATCTGAGTCTCTCAGAGAGCCATGCTG 2698
3113 GAACTCCAGAGTGTGTAAGAGTCTTATCTGAGTCTCTCAGAGAGCCATGCTG 3172
2699 TTTATCAAGAGAGTGTGTAAGTCTCTGCGCAGAGAGCTCTCTTTAAACTCTCTCT 2758
3173 TTTATCAAGAGAGTGTGTAAGTCTCTGCGCAGAGAGCTCTCTTTAAACTCTCTCT 3232
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2819 TCCCTTTTGTAAAAAGGAGGAGCAGCATGGGTGGAGATCATAGCCCTTCTAGGCGAG 2878
3293 TCCCTTTTGTAAAAAGGAGGAGCAGCATGGGTGGAGATCATAGCCCTTCTAGGCGAG 3352
2879 AATCCTGTTCACTGCCAGGCTATAGTAAATTTACTATTTTGCATTTGCAATTTGAAATATATCT 2938
3353 AATCCTGTTCACTGCCAGGCTATAGTAAATTTACTATTTTGCATTTGCAATTTGAAATATATCT 3412
2939 GGTGTTTTTCTAAATGTGAAGACTTACCAAAATGAATTTTAGATCAATTTCCAGAGGAGA 2998
3413 GGTGTTTTTCTAAATGTGAAGACTTACCAAAATGAATTTTAGATCAATTTCCAGAGGAGA 3472
2999 -TTTTTTTGTCTCTTCTCATCTTTTCAACAGTGTCTCTCTGTTTGTGGAGCTTAAGGTAA 3057
3473 TTTTTTTTGTCTCTTCTCATCTTTTCAACAGTGTCTCTCTGTTTGTGGAGCTTAAGGTAA 3532
3058 AGAGGGAGACTTCTCTGTTTAAACAGAGTCCATATCTGTGAGGCCAGCAAAATATTT 3117
3533 AGAGGGAGACTTCTCTGTTTAAACAGAGTCCATATCTGTGAGGCCAGCAAAATATTT 3592
3118 TCTTAAACTCATGGGAGACAGAGATTTCTGCTTGGTGGAGTCAATGCTGTCATAT 3177
3593 TCTTAAACTCATGGGAGACAGAGATTTCTGCTTGGTGGAGTCAATGCTGTCATAT 3652
3178 GTCTACCCCTCTGTCTTCAATGAGGAGTGTGGAATGGGGGCTACATGATGCCCTCTCC 3237
3653 GTCTACCCCTCTCTTCAATGAGGAGTGTGGAATGGGGGCTACATGATGCCCTCTCC 3712
3238 TCCCGTCTCAAGAGTGTGTTTTTCACTCTCATCTCTCTTCTTGTGAGGGAGAA 3297
3713 TCCCGTCTCAAGAGTGTGTTTTTCACTCTCATCTCTTCTTGTGAGGGAGAA 3772

QY 3298 GGGGGCTGGTATCTCAGGCAGATTGTTGAATTCCTGTTCTATCCCTTCTCTATCCACC 3357
DB 3773 GGGGGCTGGTATCTCAGGCAGATTGTTGAATTCCTGTTCTATCCCTTCTCTATCCACC 3832
QY 3358 CTGCTTGAATAATATGTTAGCCCATACCCCAATAAATGTTCTATATTAGACACCCCCAGC 3417
DB 3833 CTGCTTGAATAATATGTTAGCCCATACCCCAATAAATGTTCTATATTAGACACCCCCAGC 3892
QY 3418 CAGTTCTGGCTGCTCTCTCTTTGCTGCCATGTTTATTTTACAGAGAGGAAAGAAATTTCTGCT 3477
DB 3893 CAGTTCTGGCTGCTCTCTCTTTGCTGCCATGTTTATTTTACAGAGAGGAAAGAAATTTCTGCT 3952
QY 3478 ATTATTTTTCATAATTTACTATTTATGATGATTTTAAAGTGTGTTTATTAAGGACAGATT 3537
DB 3953 ATTATTTTTCATAATTTACTATTTATGATGATTTTAAAGTGTGTTTATTAAGGACAGATT 4012
QY 3538 CTGTTAGGGGTGGGAGGGAATATTTAGGGAGGGCTGGTCTTAGGGAAAGGAATGGGA 3597
DB 4013 CTGTTAGGGGTGGGAGGGAATATTTAGGGAGGGCTGGTCTTAGGGAAAGGAATGGGA 4072
QY 3598 AGCAACATTTTATTAAGTGTTACTATTTGCTCTACTTTGTTGTTTACAGAAATGGCAA 3657
DB 4073 AGCAACATTTTATTAAGTGTTACTATTTGCTCTACTTTGTTGTTTACAGAAATGGCAA 4132
QY 3658 ATCAATATAAAGTGATATATGTTTAAATGTAATAAATTTTAAAGTATTATTA 3713
DB 4133 ATCAATATAAAGTGATATATGTTTAAATGTAATAAATTTTAAAGTATTATTA 4188

RESULT 10

US-60-278-258-4040
; Sequence 4040, Application US/60278258
; GENERAL INFORMATION:
; APPLICANT: Morris, MacDonald
; APPLICANT: Lal, Preeti
; APPLICANT: Diep, Dinh
; TITLE OF INVENTION: Method for the Identification of Sequence Polymorphisms Using
; TITLE OF INVENTION: Polynucleotide Sequence Databases, and Single Nucleotide
; FILE OF INVENTION: Polymorphisms Identified Thereby
; FILE REFERENCE: GX-0010-1 P
; CURRENT APPLICATION NUMBER: US/60/278,258
; CURRENT FILING DATE: 2001-03-23
; NUMBER OF SEQ ID NOS: 17730
; SOFTWARE: PERL Program
; SEQ ID NO 4040
; LENGTH: 3732
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc_feature
; OTHER INFORMATION: Incyte ID No: 348086.4
US-60-278-258-4040

Query Match 98.7%; Score 3665.4; DB 71; Length 3732;
Best Local Similarity 99.9%; Pred. No. 0;
Matches 3711; Conservative 0; Mismatches 1; Indels 4; Gaps 4;

QY 1 ATTAAAGGCGGTGGTTAGGAAGACGAGGAGGCGGCTTCGCTCTCTTTGGGACTTTTCA 60
DB 11 ATTAAAGGCGGTGGTTAGGAAGACGAGGAGGCGGCTTCGCTCTCTTTGGGACTTTTCA 70
QY 61 TGCGTCTGTTTTTTTTTTCAGATGTGGCTTGTGCTTGGGCGCAAGGTCCAGCAGGCGCTTA 120
DB 71 TGCGTCTGTTTTTTTTTTCAGATGTGGCTTGTGCTTGGGCGCAAGGTCCAGCAGGCGCTTA 130
QY 121 AGCTTACTCTTCTGTGAAAGGGGAAAGTATCCCTGTGGAAGCGGTTAACTTTGGAG 180
DB 131 AGCTTACTCTTCTGTGAAAGGGGAAAGTATCCCTGTGGAAGCGGTTAACTTTGGAG 190
QY 181 GGGGTGGGACGTGAGTTCTTCCCATGCCAGGCGAATGTTGTCGCTTGGCTGCTCC 240
DB 191 GGGGTGGGACGTGAGTTCTTCCCATGCCAGGCGAATGTTGTCGCTTGGCTGCTCC 250

QY 241 AGAGAGCGGCTCGACGTGTTCTGAGGGAGG--CCCGAGGGGGCGGGAGGTGGGCCACAGA 299
DB 251 AGAGAGCGGCTCGACGTGTTCTGAGGGAGGCCCCCGAGGGGGCGGGAGGTGGGCCACAGA 310
QY 300 ACCGGGGTCTGTAAAGAGACGTTTGGGAGATTTCGATTCGAGAGAGGAGAACCGGAT 359
DB 311 ACCGGGGTCTGTAAAGAGACGTTTGGGAGATTTCGATTCGAGAGAGGAGAACCGGAT 370
QY 360 TGAAGAGAGCCAGGCGCTGAGGGGGAGGGGCTGCTAAGATGGCGTCGCGCTCTCTCCG 419
DB 371 TGAAGAGAGCCAGGCGCTGAGGGGGAGGGGCTGCTAAGATGGCGTCGCGCTCTCTCCG 430
QY 420 GGGCGTCTCTTCGGTCTGTTTTTTCATCTTTGATCCCGGGTCCCTTCTGTACCTTGT 479
DB 431 GGGCGTCTCTTCGGTCTGTTTTTTCATCTTTGATCCCGGGTCCCTTCTGTACCTTGT 490
QY 480 CCTCAGCATCTGGAATCAAGAGACCCAT--GGCATCTGAGGTGCTTATGCTCTGGCATG 538
DB 491 CCTCAGCATCTGGAATCAAGAGACCCATGAGGATCTGAGGTGCTTATGCTCTGGCATG 550
QY 539 CCCAT--CAAGAAATAGGCCATAGAAAGTGTGTTGATTCCTCAGAGAGACAACATATAAAA 597
DB 551 CCCATCAAGAAATAGGCCATAGAAAGTGTGTTGATTCCTCAGAGAGACAACATATAAAA 610
QY 598 GACAACTCATAGCTTGAAGGTGCCATCCAGTTAGGCATTACCCACTGTGGGAG 657
DB 611 GACAACTCATAGCTTGAAGGTGCCATCCAGTTAGGCATTACCCACTGTGGGAG 670
QY 658 CTGAGTACCAACACGAGGCTGATGTCCTCATGCAAGATTTCTACGTGTTGAGATAT 717
DB 671 CTGAGTACCAACACGAGGCTGATGTCCTCATGCAAGATTTCTACGTGTTGAGATAT 730
QY 718 CTTCTTTCCAGTGAAGGGAGCAACCTGACCCCTGCTCATCACTACAACTGCTTTCTGTT 777
DB 731 CTTCTTTCCAGTGAAGGGAGCAACCTGACCCCTGCTCATCACTACAACTGCTTTCTGTT 790
QY 778 CAAGACTATGCACTGTTGCTTCCCTGCTCACTTCCGGAGCTATTTGGTATCCGGCCGA 837
DB 791 CAAGACTATGCACTGTTGCTTCCCTGCTCACTTCCGGAGCTATTTGGTATCCGGCCGA 850
QY 838 TGATTTCTGTTATTCCTCTGAGTGAAGCGGCTGATGAATCTGTAGCTCTGGAGCTAG 897
DB 851 TGATTTCTGTTATTCCTCTGAGTGAAGCGGCTGATGAATCTGTAGCTCTGGAGCTAG 910
QY 898 TGGTTCCTTATCTATGTGTCCAGCGACGATGATTCATTATTAAGACAGTCCAAACATAA 957
DB 911 TGGTTCCTTATCTATGTGTCCAGCGACGATGATTCATTATTAAGACAGTCCAAACATAA 970
QY 958 AGAGCGGAATTTCTCAGAAAGTCTTCCAGGATACTACATGAACCTCAACAGAACCC 1017
DB 971 AGAGCGGAATTTCTCAGAAAGTCTTCCAGGATACTACATGAACCTCAACAGAACCC 1030
QY 1018 TCGGACTTTGCTGCTTAAATTTCTATGCACTGTACTGTGTCAGGCGAGGTGGCAAGACAT 1077
DB 1031 TCGGACTTTGCTGCTTAAATTTCTATGCACTGTACTGTGTCAGGCGAGGTGGCAAGACAT 1090
QY 1078 TCGGATTTGCTGATCAACAACTCTTTTACCAAGATCGGTAAAAATGCATATCAAAATGA 1137
DB 1091 TCGGATTTGCTGATCAACAACTCTTTTACCAAGATCGGTAAAAATGCATATCAAAATGA 1150
QY 1138 CCTCAAAGGCTCAACCTACAAACGGGGGCTTCCAGAAAGAGCGAGAGAGGCTCTTTC 1197
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QY 1198 CACATTTAAAGCCTAGACTTTTCAAGACATCCCTGTATGGTCTTTTGTGATGTGA 1257
DB 1211 CACATTTAAAGCCTAGACTTTTCAAGACATCCCTGTATGGTCTTTTGTGATGTGA 1270
QY 1258 CATTGACAAAGCTCTCTGTAAGACCCCTGAGCGTACTGTTGCTGTCAGAGCTTCAA 1317
DB 1271 CATTGACAAAGCTCTCTGTAAGACCCCTGAGCGTACTGTTGCTGTCAGAGCTTCAA 1330

Qy	1318	GATAATGGATTACAGCCTCTTGATGTC	CAATCCATAATATAGATCATGCACACGAGACC	1377
Db	1331	GATTAATGGATTATAGCCTCTTGATGTC	CAATCCATAATATAGATCATGCACACGAGACC	1390
Qy	1378	CTTTAAGCAGTGAACA	CACAGTACTCAGTTGATCTCTGAAAGCCGGCCCCC	1437
Db	1391	CTTTAAGCAGTGAACA	CACAGTACTCAGTTGATCTCTGAAAGCCGGCCCCC	1450
Qy	1438	GTATTCCACAGCATGGAAATCCATCCAGGAGAGGCTCGACGGGGTGGTACCATGGAGAC	1497	
Db	1451	GTATTCCACAGCCATGGAAATCCATCCAGGAGAGGCTCGACGGGGTGGTACCATGGAGAC	1510	
Qy	1498	TGATGACCATATGGTGGGATCCCTCCCGGAATAGTAAAGGGGAAAGGCTTCTGCTTTA	1557	
Db	1511	TGATGACCATATGGGTTGGCATCCCTCCCGCGAATAGTAAAGGGGAAAGGCTTCTGCTTTA	1570	
Qy	1558	TATTGGCATCATTTGACATTTACAGTCTTTACAGGTTTGTAAAGAGTTGGAGCACTCTTG	1617	
Db	1571	TATTGGCATCATTTGACATTTACAGTCTTTACAGGTTTGTAAAGAGTTGGAGCACTCTTG	1630	
Qy	1618	GAAAGCCCTGGTACATGACGGGAGACACTGTCTCAGTGCAATGCGGCCAGGCTTCTACGCTGA	1677	
Db	1631	GAAAGCCCTGGTACATGACGGGAGACACTGTCTCAGTGCAATGCGGCCAGGCTTCTACGCTGA	1690	
Qy	1678	ACGGTTCACGGCTTCATGTGCAACACAGTATTTAAGAGATTTCCCTTGAAGCCTTCTCC	1737	
Db	1691	ACGGTTCACGGCTTTCATGTGCAACACAGTATTTAAGAGATTTCCCTTGAAGCCTTCTCC	1750	
Qy	1738	TTCCAAAAGTTTTCGGTCTGGCTCATCTTTCTCTCGGCGAGCAGGCTCCAGTGGCAACTC	1797	
Db	1751	TTCCAAAAGTTTTCGGTCTGGCTCATCTTTCTCTCGGCGAGCAGGCTCCAGTGGCAACTC	1810	
Qy	1798	CTGCATTTACTTACACGGCATCGGTCTCTGGGGACACAAAGGCAAGTGTGCAACAAAGGC	1857	
Db	1811	CTGCATTTACTTACACGGCATCGGTCTCTGGGGACACAAAGGCAAGTGTGCAACAAAGGC	1870	
Qy	1858	AGAAAGTGAGCCAGGGGTTTCACTTGGTGGTCTCTGATGTTTATCCTCAGACTCCACCTTT	1917	
Db	1871	AGAAAGTGAGCCAGGGGTTTCACTTGGTGGTCTCTGATGTTTATCCTCAGACTCCACCTTT	1930	
Qy	1918	GGAGAAATCAGTGAGGGCTCGCTTATTCCTGACCCGAGTTTCTCAGCTTAGTGTGGAGA	1977	
Db	1931	GGAGAAATCAGTGAGGGCTCGCTTATTCCTGACCCGAGTTTCTCAGCTTAGTGTGGAGA	1990	
Qy	1978	GACTTTGCAATGCTTAACACAGTACAACTTTGAAAGGCTTGAAGTTGCAGAGTCAGA	2037	
Db	1991	GACTTTGCAATGCTTAACACAGTACAACTTTGAAAGGCTTGAAGTTGCAGAGTCAGA	2050	
Qy	2038	GTTCACCAATTAAGCGCAAAAGCCTCAGAGACCTCGGAACAAGTTCTGCGCATCTGTGTA	2097	
Db	2051	GTTCACCAATTAAGCGCAAAAGCCTCAGAGAGCCTCGGAACAAGTTCTGCGCATCTGTGTA	2110	
Qy	2098	TCCCAAGATGTCAGCCCTTCGCCCCAGCAATGCTGAATTTTCTTCTACTTGGTCAATCAAAA	2157	
Db	2111	TCCCAAGATGTCAGCCCTTCGCCCCAGCAATGCTGAATTTTCTTCTACTTGGTCAATCAAAA	2170	
Qy	2158	AAGGAGTGTAATAGAAGTGAGGGGAGCTGCTCCTCCATCTTTCTCCTGAAGAAGACCTT	2217	
Db	2171	AAGGAGTGTAATAGAAGTGAGGGGAGCTGCTCCTCCATCTTCTCCTGAAGAAGACCTT	2230	
Qy	2218	CTCTCCTTCTCTTCTTCATGAATGGCCCTTAGTGCTCAGAGAGTTGAGGACCGCAGCA	2277	
Db	2231	CTCTCCTTCTCTTCTTCATGAATGGGCCCTTAGTGCTCAGAGAGTTGAGGACCGCAGCA	2290	
Qy	2278	TCCCTCCACTCCAGAGTTGGGTGGTACGGAATTTCAACTGGCCCAACCTTTTGCTCCAC	2337	
Db	2291	TCCCTCCACTCCAGAGTTGGGTGGTACGGAATTTCAACTGGCCCAACCTTTTGCTCCAC	2350	
Qy	2338	TATTGAATTTTTTTTTCAGACCCCACTTCTCATGCTGGAAATGGGAATGCTGGACTTGCCA	2397	
Db	2351	TATTGAATTTTTTTTTCAGACCCCACTTCTCATGCTGGAAATGGGAATGCTGGACTTGCCA	2410	
Qy	2398	GCCTTTCTTTCCCTCTGCTTTTGTGATAGGAAACGGGACTCTTAATTTTCTCAGGACAGACTA	2457	

D	b	2411	GCTTTCTTTTCCCTCGTCCTTTGACATAGAACCGGACHTTAATTTCTCAGNACACTA	2470
Q	y	2458	GCTGGCACATTATCCCTACCTTAGTTCTTTCTCTCACTCTCGGGAAGAATACTCTGTGA	2517
D	b	2471	GCTGGCACATTATCCCTACCTTAGTTCTTTCTCTGACTCCTGGGAAGATACTCTGTGA	2530
Q	y	2518	ATCTCTGAAGGTTTTTGSGGGATAGGGTGTTAAACCCTCCCAGCTTTCTCTTCT	2577
D	b	2531	ATCTCTGAAGGTTTTTGSGGGATAGGGTGTTAAACCCTCCCAGCTTTCTCTTCT	2590
Q	y	2578	TTTTTTTTTCTGAAAAAGAAAAGCACACAGCACACAATTTCAAGCCAATTTTCAGATC	2637
D	b	2591	TTTTTTTTTCTGAAAAAGG-AAAGCACACAGCACACAATTTCAAGCCAATTTTCAGATC	2649
Q	y	2638	AGAACTCCAGAGTGTTGACAAGATGCCTATTCTGTAGAGTTCCCTCAGAGAGCCATGCT	2697
D	b	2650	AGAACTCCAGAGTGTTGACAAGATGCCTATTCTGTAGAGTTCCCTCAGAGAGCCATGCT	2709
Q	y	2698	GTTATTGAGAGAAGTAGTAGTGCCTGCCAGAGACAGCTCCTCTTTAAACTCCTCC	2757
D	b	2710	GTTATTGAGAGAAGTAGTAGTGCCTGCCAGAGACAGCTCCTCTTTAAACTCCTCC	2769
Q	y	2758	TCTCTTGATGAATTTCTTAAGCCTCAAGGAATGAAGAGATGGGACATGGGGTAATCTTT	2817
D	b	2770	TCTCTTGATGAATTTCTTAAGCCTCAAGGAATGAAGAGATGGGACATGGGGTAATCTTT	2829
Q	y	2818	ATCCCTTTGTTAAACACGGGACGCCATGGCTGGGAGATCATAGCCTTCTCTAGGCA	2877
D	b	2830	ATCCCTTTGTTAAACACGGGACGCCATGGCTGGGAGATCATAGCCTTCTCTAGGCA	2889
Q	y	2878	GAATCTCTGTTCACTGCCAGGCTATAGTAATTAATTAATAATTTGCAAATTAATATTC	2937
D	b	2890	GAATCTCTGTTCACTGCCAGGCTATAGTAATTAATTAATAATTTGCAAATTAATATTC	2949
Q	y	2938	TGGTTGTTTTTCTAAATGTGAGACCTTACCAANTGAAATTTTAGATCATTTCCAGAGGAG	2997
D	b	2950	TGGTTGTTTTTCTAAATGTGAGACCTTACCAANTGAAATTTTAGATCATTTCCAGAGGAG	3009
Q	y	2998	ATTTTTTTTGCCTCTCTCATCTTTTTCCAA CAGTGTTCTCTGTGTGGAGCTAAGGTAA	3057
D	b	3010	ATTTTTTTTGCCTCTCTCATCTTTTTCCAA CAGTGTTCTCTGTGTGGAGCTAAGGTAA	3069
Q	y	3058	AGAGGGACACTTCTGTCTGTTTAA CAGACAGTCCATATCTGTGAGGCCACGCAATATTT	3117
D	b	3070	AGAGGGACACTTCTGTCTGTTTAA CAGACAGTCCATATCTGTGAGGCCACGCAATATTT	3129
Q	y	3118	TCITTAACCTCATGGGAGACAGCAGATTCTTGCCTTGTGTGAGGTCATTTGTCGCCATAT	3177
D	b	3130	TCITTAACCTCATGGGAGACAGCAGATTCTTGCCTTGTGTGAGGTCATTTGTCGCCATAT	3189
Q	y	3178	GTCTACCCCCCTGTCTTTCATGAGGGAA GTTGGAAATGGGGGCTACATATGCCCTCTCC	3237
D	b	3190	GTCTACCCCCCTGTCTTTCATGAGGGAA GTTGGAAATGGGGGCTACATATGCCCTCTCC	3249
Q	y	3238	TCCCGCTCAAGAGTTGTTTTTCCATCTGATCTCTTCCACTCTGTCTAGGGGGAAGAA	3297
D	b	3250	TCCCGCTCTAAGAGTTGTTTTTCCATCTGATCTCTTCCACTCTGTCTAGGGGGAAGAA	3309
Q	y	3298	GGGGGCTGGTATCTCAGGCAGATTGTTGAAATTCCTGTTCTATTCCTTCTCTATCCGACC	3357
D	b	3310	GGGGGCTGGTATCTCAGGCAGATTGTTGAAATTCCTGTTCTATTCCTTCTCTATCCGACC	3369
Q	y	3358	CTGCCCTGAATAATGTTAGCCCATACCCCAATAACTGCTATATTAGACACCCCCAGC	3417
D	b	3370	CTGCCCTGAATAATGTTAGCCCATACCCCAATAACTGCTATATTAGACACCCCCAGC	3429
Q	y	3418	CAGTTTCTGGGCTGCTCTCTTTGCTGCAATGTTTTTACAAGAGAAAGAAATCTTGCT	3477
D	b	3430	CAGTTTCTGGCTGCTCTCTTTGCTGCAATGTTTTTACAAGAGAAAGAAATCTTGCT	3489
Q	y	3478	ATTTTTTTTTTCAATAATTAATAATTAATGAATGATTAAGTGTTTTTATTAAGGACAGAGTT	3533

Db 3490 ATTTTTCATTAATTTACTATTATGATGATTTAAAGTGTGTTTATTAAGGACAGAGTT 3549
QY 3538 CTGTTAGGGTGGGAGGAATATTTGAGGAGGGCTGGGCTTTAGGGAAGGAATGGGA 3597
Db 3550 CTGTTAGGGTGGGAGGAATATTTGAGGAGGGCTGGGCTTTAGGGAAGGAATGGGA 3609
QY 3598 AGCAACATTTTATTAAGTGTGTTACTATTTGCGCTACTTTGTTATTTGTTCAAGAAATGGCAA 3657
Db 3610 AGCAACATTTTATTAAGTGTGTTACTATTTGCGCTACTTTGTTATTTGTTCAAGAAATGGCAA 3669
QY 3658 ATACAAATATAAAGTGATATATGTTTAAATGTAATAAATTTAAATGAGTTATTTA 3713
Db 3670 ATACAAATATAAAGTGATATATGTTTAAATGTAATAAATTTAAATGAGTTATTTA 3725

RESULT 11

US-60-213-360-1871
; Sequence 1871, Application US/60213360
; GENERAL INFORMATION:
; APPLICANT: Morris, Macdonald
; APPLICANT: Lal, Preeti
; APPLICANT: Diep, Dinh
; TITLE OF INVENTION: Method for the Identification of Sequence Polymorphisms Using
; TITLE OF INVENTION: Polynucleotide Sequence Databases, and Single Nucleotide Polymor
; TITLE OF INVENTION: Identified thereby
; FILE REFERENCE: GX-0014 P
; CURRENT APPLICATION NUMBER: US/60/213,360
; CURRENT FILING DATE: 2000-06-21
; NUMBER OF SEQ ID NOS: 8347
; SOFTWARE: PERL Program
; SEQ ID NO 1871
; LENGTH: 3751
; TYPE: DNA
; ORGANISM: Homo sapiens
; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No: 348086.4
US-60-213-360-1871

Query Match 98.3%; Score 3651.4; DB 65; Length 3751;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 3710; Conservative 0; Mismatches 1; Indels 8; Gaps 5;

QY 1 ATTAACAGCCGCTGGTTAGGAAGACGAGAGGGGGCTTCCTCTTTGGGACTTTTCA 60
Db 27 ATTAACAGCCGCTGGTTAGGAAGACGAGAGGGGGCTTCCTCTTTGGGACTTTTCA 86
QY 61 TGCCTCGTTTTTTTTCAGATGTGGCTTGGTCTGGGGCGAAGTCCACAGCCAGCTTA 120
Db 87 TGCCTCGTTTTTTTTCAGATGTGGCTTGGTCTGGGGCGAAGTCCACAGCCAGCTTA 146
QY 121 AGCTTACTCTCTGTGAAGGGGAAGTATCCCTGTGGAAGCGGTAAACTTTGTGGAG 180
Db 147 AGCTTACTCTCTGTGAAGGGGAAGTATCCCTGTGGAAGCGGTAAACTTTGTGGAG 206
QY 181 GGGGTGGGACGAGTGTCTTCCCATGCCAGCGAAGTGTGGCTTTGAGCTGGTCC 240
Db 207 GGGGTGGGACGAGTGTCTTCCCATGCCAGCGAAGTGTGGCTTTGAGCTGGTCC 266
QY 241 AGAGCCGGCTCCAGCTGTCTGAGGGAGG-CCCGAGGGGGGGGGAGGTGGGCCACAGA 299
Db 267 AGAGCCGGCTCCAGCTGTCTGAGGGAGGGCCCGAGGGGGGGGGAGGTGGGCCACAGA 326
QY 300 ACCGGGTTCTGTAAAGAGACGTTGGGAAGATTTCGATTCCGAGAAGAGGAAGAACCGGAT 359
Db 327 ACCGGGTTCTGTAAAGAGACGTTGGGAAGATTTCGATTCCGAGAAGAGGAAGAACCGGAT 386
QY 360 TGAAGAGACCCAGCGCTGTGAGGGGAGGGGGCTGTCTAAGATGGCGTCCGCTCCG 419
Db 387 TGAAGAGACCCAGCGCTGTGAGGGGAGGGGGCTGTCTAAGATGGCGTCCGCTCCG 446
QY 420 GGGCGTCTTCGGTGGTTTTTCATCTTTGATCCCGGGGTCCCTTCTGTACCTTGT 479

Db 447 GGGCGTCTTCGGTGGTTTTTCATCTTTGATCCCGGGTCCCTTCTGTACCTTGT 506
QY 480 CCT--CAGCATCTGGAATCAAGAGACCCAT--GGCATCTGAGGTGCTTTATGCTCTGGC 535
Db 507 CCTCAGCAGCATCTGGAATCAAGAGACCCATGGGCATCTGAGGTGCTTTATGCTCTGGC 566
QY 536 ATGCCCAT--CAAGAAATAGGCCATAGAGTGTGATTTCTCAGGAGAGCAACATATAA 594
Db 567 ATGCCCATCAAGAAATAGGCCATAGAGTGTGATTTCTCAGGAGAGCAACATATAA 626
QY 595 AAAGACAACTCATCAGCCTTGAAGGTGCCATCCAGTTAGGCAATACCCACACTGTGGG 654
Db 627 AAAGACAACTCATCAGCCTTGAAGGTGCCATCCAGTTAGGCAATACCCACACTGTGGG 686
QY 655 GAGCCTGAGTACCAACCCAGAGCGTGTATGTCCTCATGCAAGATTTCTAGTGGTTGAGAG 714
Db 687 GAGCCTGAGTACCAACCCAGAGCGTGTATGTCCTCATGCAAGATTTCTAGTGGTTGAGAG 746
QY 715 TATCTTTCTTCCAGTGAAGGGAGCAACCTGACCCCTGCTCATCATCAATGACCTTTCG 774
Db 747 TATCTTTCTTCCAGTGAAGGGAGCAACCTGACCCCTGCTCATCAATGACCTTTCG 806
QY 775 TTTCAAGACTATGCAACCTGTTGCTTCCGCTACTTCCGGAGCTATTTGGTATCCGGCC 834
Db 807 TTTCAAGACTATGCAACCTGTTGCTTCCGCTACTTCCGGAGCTATTTGGTATCCGGCC 866
QY 835 CGATGATTACTTTGTTATTCCTCTGCAAGTGGCGCTGATTTGAACTCTGTAGCTCTGGAGC 894
Db 867 CGATGATTACTTTGTTATTCCTCTGCAAGTGGCGCTGATTTGAACTCTGTAGCTCTGGAGC 926
QY 895 TAGTGGTTCCCTATTTCTATGTTGTCAGGACGATGAGTTCAATTTAAGACAGTCCAAACA 954
Db 927 TAGTGGTTCCCTATTTCTATGTTGTCAGGACGATGAGTTCAATTTAAGACAGTCCAAACA 986
QY 955 TAAAGAGGCGGAATTTCTGCAAGTGTCTTCCAGGATACTACATGAACCTCAACAGAA 1014
Db 987 TAAAGAGGCGGAATTTCTGCAAGTGTCTTCCAGGATACTACATGAACCTCAACAGAA 1046
QY 1015 CCCTCGGACTTTGCTGCTTAAATTTCTATGAGCTGTACTGTGTGAGGAGGCTGGCAAGAA 1074
Db 1047 CCCTCGGACTTTGCTGCTTAAATTTCTATGAGCTGTACTGTGTGAGGAGGCTGGCAAGAA 1106
QY 1075 CATTCGGATTGTGGTGAATGAACATCTTTTACCAAGATCGGTAATAATGCAATATCAATA 1134
Db 1107 CATTCGGATTGTGGTGAATGAACATCTTTTACCAAGATCGGTAATAATGCAATATCAATA 1166
QY 1135 TGACCTCAAGGCTCAACCTTACAAACGGGGCTTCCAGAAAGAGCGAGAGGCTCT 1194
Db 1167 TGACCTCAAGGCTCAACCTTACAAACGGGGCTTCCAGAAAGAGCGAGAGGCTCT 1226
QY 1195 TCCACATTTAAAGACCTAGACTTTCTTACAAGACATCCCTGATGGTCTTTTGTGATGC 1254
Db 1227 TCCACATTTAAAGACCTAGACTTTCTTACAAGACATCCCTGATGGTCTTTTGTGATGC 1286
QY 1255 TGACATGTAACAGCTCTCTGTAAAGACCTTGCAGCGTGAATGTTGGTGTGTCAGAGCTT 1314
Db 1287 TGACATGTAACAGCTCTCTGTAAAGACCTTGCAGCGTGAATGTTGGTGTGTCAGAGCTT 1346
QY 1315 CAAGATAATGGAATTACAGCTCTTGTGATGTCAATCCATATATAGATCATGCACACGAGA 1374
Db 1347 CAAGATAATGGAATTACAGCTCTTGTGATGTCAATCCATATATAGATCATGCACACGAGA 1406
QY 1375 GCCTTTAAGCAGTGAACACAGTACTCAGTTGATACTCGAAGACCGGGCCCCCAAGGC 1434
Db 1407 GCCTTTAAGCAGTGAACACAGTACTCAGTTGATACTCGAAGACCGGGCCCCCAAGGC 1466
QY 1435 TCTGTATTTCAAGCCATGGAATCCATCCAGGAGAGGCTCGACGGGGTGGTACCATGGA 1494
Db 1467 TCTGTATTTCAAGCCATGGAATCCATCCAGGAGAGGCTCGACGGGGTGGTACCATGGA 1526
QY 1495 GACTGATGACCATATATGGTGGCATCCCTGCCCGGAATAGTAAGGGGGAAGGCTCTGCT 1554
Db 1527 GACTGATGACCATATATGGTGGCATCCCTGCCCGGAATAGTAAGGGGGAAGGCTCTGCT 1586

1555 TTAATAATGGGCAATGACATTCCTACAGTCTTACAGGTTTGTAAAGATTGGAGCACTC 1614
1587 TTATAATTGGCAATCAATGACATTCCTACAGTCTTACAGGTTTGTAAAGATTGGAGCACTC 1646
1615 TTGGAAGCCCTGGTACATCAGCGAGACATGCTCAGTGCATCGCCAGGCTTCTACGC 1674
1647 TTGGAAGCCCTGGTACATCAGCGAGACATGCTCAGTGCATCGCCAGGCTTCTACGC 1706
1675 TGAACGGTTCACAGCGCTTCATGTGCAACACAGATTTTAAAGAGATTCCTTTGAAGCCTTC 1734
1707 TGAACGGTTCACAGCGCTTCATGTGCAACACAGATTTTAAAGAGATTCCTTTGAAGCCTTC 1766
1735 TCTTCCAAAAGATTTCGGTCTGGCTCATCTTCTCTCGCGAGAGCGCTCAGTGGCAA 1794
1767 TCTTCCAAAAGATTTCGGTCTGGCTCATCTTCTCTCGCGAGAGCGCTCAGTGGCAA 1826
1795 CTCTCGATTTACTTACCAGGCATCGGTCTCTGGGGAACACAAAGGCAACAGTGACACAAA 1854
1827 CTCTCGATTTACTTACCAGGCATCGGTCTCTGGGGAACACAAAGGCAACAGTGACACAAA 1886
1855 GGCAGAAATGGAGCCAGCGCTTCACTTGGTGGTCTGTGATGTTTACCTCAGACTCCACC 1914
1887 GGCAGAAATGGAGCCAGCGCTTCACTTGGTGGTCTGTGATGTTTACCTCAGACTCCACC 1946
1915 TTTTGGAGGAATCAGTCAGGCGCTCGCCTATTCTGACCCAGATTTCTCACTCTAGTTGG 1974
1947 TTTTGGAGGAATCAGTCAGGCGCTCGCCTATTCTCTGAACCCAGATTTCTCACTCTAGTTGG 2006
1975 AGAGACTTTGCAAAATGCTAACTACAAGTCAAACTTGGGAAAGCTTGAAGTTGCAGATC 2034
2007 AGAGACTTTGCAAAATGCTAACTACAAGTCAAACTTGGGAAAGCTTGAAGTTGCAGATC 2066
2035 AGATTTCAACCAATTAAGCGCAAGCCTCAGAAAGCCTGGAACAGATTTGCGCATCTCTG 2094
2067 AGATTTCAACCAATTAAGCGCAAGCCTCAGAAAGCCTGGAACAGATTTGCGCATCTCTG 2126
2095 TGATCCCAAGATGTCAGCCCTTGGCCAGCAATGCTGAAATTTCTTCTACTTGGTGCATCA 2154
2127 TGATCCCAAGATGTCAGCCCTTGGCCAGCAATGCTGAAATTTCTTCTACTTGGTGCATCA 2186
2155 AAAAAGGAGTGAATAGAAATGAGGGAGCTGCTCTCCATCTTTCTTCTGGAAGAAGC 2214
2187 AAAAAGGAGTGAATAGAAATGAGGGAGCTGCTCTCCATCTTTCTTCTGGAAGAAGC 2246
2215 CTTCT 2274
2247 CTTCT 2306
2275 GCATCCCTCCACTCCAGAGTTGGTGGTACGGATTTTCAACTGGCCAAACCTTTTGCTC 2334
2307 GCATCCCTCCACTCCAGAGTTGGTGGTACGGATTTTCAACTGGCCAAACCTTTTGCTC 2366
2335 CACTATTGAATTTTTCAGACCCCAATCTTCTCATGCTGGAATGGGAATGCTGGACTTG 2394
2367 CACTATTGAATTTTTCAGACCCCAATCTTCTCATGCTGGAATGGGAATGCTGGACTTG 2426
2395 GCAGCTTTCTTCT 2454
2427 GCAGCTTTCTTCT 2486
2455 CTAGCTGGCACAATATCCCTACTCTAGTTCTTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 2514
2487 CTAGCTGGCACAATATCCCTACTCTAGTTCTTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 2546
2515 GTAATCTCTGAAGGTTTTTGGGGGATAAGGGTTTAAACCACTCCAGCTTCTCTCTCTCTCT 2574
2547 GTAATCTCTGAAGGTTTTTGGGGGATAAGGGTTTAAACCACTCCAGCTTCTCTCTCTCTCT 2606
2575 TCTTTTTTTTTTCTCAAAAAGGAAAAGCACACAGCACAAATTTCAAGCATTTTTCAG 2634
2607 TCTTTTTTTTTTCTGAAAAAAGGAAAA--CACACAGCACAAATTTCAAGCATTTTTCAG 2664

2635 ATCAGAACTCCAGAAAGTGTGTGAAAGATGCGCTATTCTGTAGAGTTCCTCCTCAGAAAGCCAT 2694
2665 ATCAGAACTCCAGAAAGTGTGTGAAAGATGCGCTATTCTGTAGAGTTCCTCCTCAGAAAGCCAT 2724
2695 GGTGTTTATGAAGAAGAGTAGTGTCTCTGCGAGAGCAGCTCTCTTTTAAACTCC 2754
2725 GGTGTTTATGAAGAAGAGTAGTGTCTCTGCGAGAGCAGCTCTCTTTTAAACTCC 2784
2755 TCTCTCTCTGATGAATTTCTTAAGGCTGAAGAAATGAAGAGAGTGGGACATGGGGTAATC 2814
2785 TCTCTCTCTGATGAATTTCTTAAGGCTGAAGAAATGAAGAGAGTGGGACATGGGGTAATC 2844
2815 TTTATCCCTTTTGTAAACACAGGAGCGCATGGGCTGGGAGATCATAGGCCCTTCTCTAG 2874
2845 TTTATCCCTTTTGTAAACACAGGAGCGCATGGGCTGGGAGATCATAGGCCCTTCTCTAG 2904
2875 GCAGAAATCCTGTCTCACTGCGAGGCTATAGTAATTAATTAATTTTGCATTTTGAATATA 2934
2905 GCAGAAATCCTGTCTCACTGCGAGGCTATAGTAATTAATTAATTTTGCATTTTGAATATA 2964
2935 TTTCTGGTGTCTTTTCTTAAATGTGAAGACTTACCAATGAATTTTAGATCATTTCTCCAGAG 2994
2965 TTTCTGGTGTCTTTTCTTAAATGTGAAGACTTACCAATGAATTTTAGATCATTTCTCCAGAG 3024
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3055 TAAAGAGGGGACACTTCTCTGTGTAAACAGAGCTCCATATCTGTGAGGCCAGCAATA 3114
3085 TAAAGAGGGGACACTTCTCTGTGTAAACAGAGCTCCATATCTGTGAGGCCAGCAATA 3144
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3145 TTTTCTTAAACTCATCGGAGAGCAGCAGATTTCTGCTTTGGTGGAGTCAATTTGCTGTGCCA 3204
3175 TATGTCCTACCCCTCTCTCATGCAAGGAAATGGGAGCTCATATGCGCTC 3234
3205 TATGTCCTACCCCTCTCTCATGCAAGGAAATGGGAGCTCATATGCGCTC 3264
3235 TCTCTCCGCTCTACAGAGTTGGTGTTCCTCATCTCATCTTCCACTCTTGTGAGGGGA 3294
3265 TCTCTCCGCTCTACAGAGTTGGTGTTCCTCATCTCATCTTCCACTCTTGTGAGGGGA 3324
3295 GAAGGGGCGCTGGTATCTCAGGCAGATTTGTAATTTCTGTTCTATCCCTTCTCTATCCC 3354
3325 GAAGGGGCGCTGGTATCTCAGGCAGATTTGTAATTTCTGTTCTATCCCTTCTCTATCCC 3384
3355 ACCCTGCTTGTATATATGTTAGCCCATACCCCAATTAAGTGTCTATATTTAGACACCCC 3414
3385 ACCCTGCTTGTATATATGTTAGCCCATACCCCAATTAAGTGTCTATATTTAGACACCCC 3444
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3475 GCTATTTTTTTTTTCAATAATTTACTATTTATGATGATTTTAAAGTGTTTTATTAAGGACAGA 3534
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3535 GTTCTGTAGGGTGGGAGGGAATTTTGGAGGAGGCTGGGCTTTAGGGAAGGAATGG 3594
3565 GTTCTGTAGGGTGGGAGGGAATTTTGGAGGAGGCTGGGCTTTAGGGAAGGAATGG 3624
3595 GGAAGCAACATTTTTTATTAAGTGTACTATTTGCTCTACTTTGTATTTGTTCAGAAATGG 3654
3625 GGAAGCAACATTTTTTATTAAGTGTACTATTTGCTCTACTTTGTATTTGTTCAGAAATGG 3684
3655 CAAATACAAATATAAAGTGTATATGTTTAAATGTAATAAATCTTTAATCAGTTATTTA 3713
3685 CAAATACAAATATAAAGTGTATATGTTTAAATGTAATAAATCTTTAATCAGTTATTTA 3743

1736 CTTTCCAAAGATTGGTCTGCTCATCTTTCTCTGGGAGAGAGCTCCAGTGGCAAC 1795
1777 CTTTCCAAAGATTGGTCTGCTCATCTTTCTCTGGGAGAGAGCTCCAGTGGCAAC 1836
1796 TCTTGCATTAATCTACAGGCAATCGTCTCTGGGAAACAAGGACAAAGTGACAAAG 1855
1837 TCTTGCATTAATCTACAGGCAATCGTCTCTGGGAAACAAGGACAAAGTGACAAAG 1896
1856 GCAGAGTGAGGAGGAGGCTTACCTTGGTCTGCTGATGTTTACCTGAGCTCCACCT 1915
1897 GCAGAGTGAGGAGGAGGCTTACCTTGGTCTGCTGATGTTTACCTGAGCTCCACCT 1956
1916 TTGGAGGAAATCAGTGAGGCTGCTGATGTTTACCTGAGCTCCACCTTGGTGGGA 1975
1957 TTGGAGGAAATCAGTGAGGCTGCTGATGTTTACCTGAGCTCCACCTTGGTGGGA 2016
1976 GAGACTTTGCAAAATGCTAACTACAGTACAACTTGGGAAAGCTTGAAGTTGAGAGTCA 2035
2017 GAGACTTTGCAAAATGCTAACTACAGTACAACTTGGGAAAGCTTGAAGTTGAGAGTCA 2076
2036 GAGTTTACCCATTAAGGCAAGGCTCAGAGAGCTTGAAGTCTGCTGCTGCTGCT 2095
2077 GAGTTTACCCATTAAGGCAAGGCTCAGAGAGCTTGAAGTCTGCTGCTGCTGCT 2136
2096 GATCCCAAGATGT-CAGCCCTTGGCCGAGCAATGCTGAAATTTCTTCTTCTGCTGCTGCT 2154
2137 GATCCCAAGATGT-CAGCCCTTGGCCGAGCAATGCTGAAATTTCTTCTTCTGCTGCTGCT 2196
2155 AAAAAGAGTGTAAATAGAGTGGGAGCTGCTTCCCTTCTTCTTCTTCTTCTTCTTCTTCT 2214
2197 AAAAAGAGTGTAAATAGAGTGGGAGCTGCTTCCCTTCTTCTTCTTCTTCTTCTTCTTCT 2256
2215 CTTCT 2274
2257 CTTCT 2316
2275 GCATCCCTTCCCTCAGAGTGGTGGTACGGATTTTCACTGGCCCAACCTTCTTCTCTCTCT 2334
2317 GCATCCCTTCCCTCAGAGTGGTGGTACGGATTTTCACTGGCCCAACCTTCTTCTCTCTCT 2376
2335 CACTATTGAATTTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 2394
2377 CACTATTGAATTTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 2436
2395 GCAGCTTTCTTCT 2454
2437 GCAGCTTTCTTCT 2496
2455 CTAGCTGGCACAATATCCCTTCT 2514
2497 CTAGCTGGCACAATATCCCTTCT 2556
2515 GTAATCTCTGTAAGGTTTTTGGGGGATTAAGGTTTAAACCACTCCAGCTTTTCTTCTTCTTCT 2571
2557 GTAATCTCTGTAAGGTTTTTGGGGGATTAAGGTTTAAACCACTCCAGCTTTTCTTCTTCTTCT 2616
2572 TCTTCTTTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 2630
2617 CTCTCTTTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 2676
2631 TCAGATCAGAACTCAGAGAGTGTGACAGATGCTATTCGTAGAGTTCCCTCAGAGAGAG 2690
2677 TCAGATCAGAACTCAGAGAGTGTGACAGATGCTATTCGTAGAGTTCCCTCAGAGAGAG 2736
2691 CCATGGTCTTATGAAGAGAGTGTGATGCTTCTCCGAGAGAGAGCTCTCTCTTAA 2750
2737 CCATGGTCTTATGAAGAGAGTGTGATGCTTCTCCGAGAGAGAGCTCTCTCTTAA 2796
2751 CTCCT 2810
2797 CTCCT 2856

2811 AATCTTTATCCCTTTTGTAAACAGGAGGAGCCATGGCTGGGAGATCATAGCCCTTC 2870
2857 AATCTTTATCCCTTTTGTAAACAGGAGGAGCCATGGCTGGGAGATCATAGCCCTTC 2916
2871 CTAGGAGAAATCCTGTTCTACTGCCAGGCTATAGTAATTAATTAATTTTGAATTTGAA 2930
2917 CTAGGAGAAATCCTGTTCTACTGCCAGGCTATAGTAATTAATTAATTTTGAATTTGAA 2976
2931 TATATTTCTGTTTGTCTTCTTAAATGTAAGACTTACCAATCAATTTTGAATCATTTCTCC 2990
2977 TATATTTCTGTTTGTCTTCTTAAATGTAAGACTTACCAATCAATTTTGAATCATTTCTCC 3036
2991 AGAGGAGATTTTGTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 3050
3037 AGAGGAGATTTTGTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 3096
3051 AGGTAAAGAGGAGGACACTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 3109
3097 AAGGTAAAGAGGAGGACACTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 3156
3110 AATATTTTCTTAACTCATGGGAGAGACAGATTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 3169
3157 AATATTTTCTTAACTCATGGGAGAGACAGATTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 3216
3170 TGCCATATGTCCTTACCCCTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 3229
3217 TGCCATATGTCCTTACCCCTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 3276
3230 CCT 3289
3277 CCT 3336
3290 GGGAGAGAGGAGGAGGAGTCT 3349
3337 GGGAGAGAGGAGGAGGAGTCT 3396
3350 ATCCCACT 3409
3397 ATCCCACT 3456
3410 CCCCAGGAGGAGGAGGAGGAGTCT 3469
3457 CCCCAGGAGGAGGAGGAGGAGTCT 3516
3470 TCT 3529
3517 TCT 3576
3530 ACAGAGTCT 3589
3577 ACAGAGTCT 3636
3590 AATGGGAGGAGGAGGAGGAGGAGTCT 3649
3637 AATGGGAGGAGGAGGAGGAGGAGTCT 3696
3650 AATGGGAGGAGGAGGAGGAGGAGTCT 3709
3697 AATGGGAGGAGGAGGAGGAGGAGTCT 3756
3710 TTTA 3713
3757 TTTA 3760

RESULT 13

US-60-212-356-49/c

; Sequence 49, Application US/60212356

; GENERAL INFORMATION:

; APPLICANT: Beasley, Ellen

; TITLE OF INVENTION: ISOLATED HUMAN PHOSPHOLIPASE PROTEINS,

; TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMAN PHOSPHOLIPASE

; TITLE OF INVENTION: PROTEINS, AND USES THEREOF

FILE REFERENCE: CL000677
CURRENT APPLICATION NUMBER: US/60/212,356
CURRENT FILING DATE: 2000-06-19
NUMBER OF SEQ ID NOS: 411
SOFTWARE: FaSTSeq for Windows Version 4.0
SEQ ID NO 49
LENGTH: 32768
TYPE: DNA
ORGANISM: HUMAN
US-60-212-356-49

Query Match 81.8%; Score 3038.4; DB 65; Length 32768;
Best Local Similarity 91.2%; Pred. No. 0;
Matches 3420; Conservative 0; Mismatches 276; Indels 56; Gaps 16;

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DB 12171 TAAACAGCGCGTGTAGGAGGACGAGAGGCGGCTCGCTCTTTGGGACTTTTCAC 12112

QY 62 GCCTCG-----TTTTTTTTCAGATGTGGCTTGGCTGGCGCAAGTCCAGAGGCC 114
DB 12111 GCCTCGTTTTTTTTTCTCAGATGTGGCTTTTCTCGAGCGAGGTCCTCAAGCAGTC 12052

QY 115 AGCTTAAGCTTACTCTCTGTAAGGGAAGTATCCCTGTGGAAGCGGTTAACTT 174
DB 12051 AGCTTGAGCTTACTCTCTGTGAAGCGGAAGTCTCTCTGAGGAAGCGGTTGAACCT 11992

QY 175 GTGAGGCGGTGGGAGCGTGTGAGTCTTCCCATGCCAGCGCAATGGTGTGGCTTTGAGC 234
DB 11991 GTGAGGCGGTGGAGCGGCGTCTTCCCATGCCAGCGCAATGGTGTGGCTTTGAGC 11932

QY 235 TGTCTCAGAGCGCGGCTC---GACGTGTCTGAGGAGG-CCCGAGGGGCGGGGAGGTG 230
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QY 291 GCCCAGAGACGCGGCTTCTGTAAGAGAGCTTGGGAAGATTCGATTCGAGAGAGGAA 350
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QY 351 GAACCGGATTGAAGAGAGCGCGGCTCAGGAGGAGGCGGCTGCTTAAGATGGCGTCGG 410
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QY 531 CTGGCATGCCCATCAAGAAATAGGCCATAGAAGTGTGATTTCTCAGGAGAGACAAAT 590
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DB 10851 GCTTCAAGATTAATGGAATTAAGGCTCTTGTGATGTCATTCATTAATATAGATCATGCAAC 10792

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DB 10431 AGCTTCTCTCTTCCAAAAGTTTCGCTCTGGCTCATCTTTCTCTCTGCACTACGCGGCTCCA 10372

QY 1788 GTGGCAACTCTCTCATTTACTTACAGCCATCGGCTCTCTGGGGAACACAGGCAAGTGA 1847
DB 10371 GTGGCAACTCTCTCATTTACTTACAGCCATTTGGTCTCTGAGGAAACACAGTCAAGTG- 10313

QY 1848 CAACAAAGGAGAGGTGAGCCAGGCGTTTCACTTGGTGTCTGATGTTTGTATTTTACCTCAGA 1907
DB 10312 --ATAAGGTGCAAGTGGAGCCAGGTTTCACTTGGTGTCTGATGTTTGTATTTTACCTCAGA 10255

QY 1908 C-----TCCACCTTTGGAGGAAATCAGTGGGCTCGGCTATTTCTGACCCAGGTTTC 1960
DB 10254 CTTCAAGATCCACCTTTGGAGGAAATCAGTGGGCTC-ACTATTACTGACCCAGGTTTC 10196

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Qy	62	GCCTCG-----TTTTTTTTTTTCAGATGTGGCTGGTCTGGCGCAAGGTCCACGACGCC	114
Db	12112	GCCTCGTTTGTGTTTTTTTCTTCAGATGTGGCTTTTTCCTGACGCGGGTCCAGCAGTC	12053
Qy	115	AGCTTAAGCTTACTCTCTCTGTGTAAGGGGAAAGTATCCCTCTGTGAAAGCGGTAAACTT	174
Db	12052	AGCTTGAAGCTTACTCTCTGTGTAAGGCGGAAAGTCTCCTCTGAGGAAAGCGTTGAACTT	11993
Qy	175	GTGAGGGGGTGCGGAGCGTGAGTCTTCCCATGCCAGGCGGAATGGTGGCCCTTGAGC	234
Db	11992	GTGAGGCGGTGCGAGACGGCGGTCTCCCATGCCAGGCGGAATGGTGGCCCTTGAGC	11933
Qy	235	TGGTCCAGGAGCCCGGCTC---GACGTGCTCAGGGAGG-CCCGAGGGGGCGGGAGGTG	290
Db	11932	TGGTCCAGGAGCCCGGCTCATGACAGTCTGAGGGAGGCCCCAGNGCGCGGGAGGTG	11873
Qy	291	GCCACAGAAACGCGGGTTCTGTAAAGAGACGTGTGGAAAGATTCGATTCGAGAGAGAGAA	350
Db	11872	GCCCGCAGAACGCGGGTTCTGTAAAGACACGTGGAGAAAGATTCGATTCGAGAGAGAGAA	11813
Qy	351	GAAACCGGATTGAAGAGAGCACGCGCTGAGGGGAGGGGCTGCTAAGATGGGCTCGG	410
Db	11812	GAGCGGATGTAAAGAGAGACGACGCGGTGCGCGGAGGGGGCTGCCAAGATGGCGTCCG	11753
Qy	411	CCTCCTCGGCGCGTCTTCGGTTCGGTGTGTTTTTTCATCTCTTTGATCCCGCGTCCCT	470
Db	11752	CCTCCTCCCAACCGTCTGTGGCGGTGTTTTTTCATCTCTTTGATCCCGGGGCCCTTCT	11693
Qy	471	GTACTTTGTCTCTCAGCATCTCGAATCAAGAGACCAATGGCATCTGAGTGCTCTATGCCT	530
Db	11692	GTACCGGCTCTCAGCATCTCGAATCTTGAGCCCCACGCGCATCTGAGTGCCTATGCT	11633
Qy	531	CTGCGATGCCATCAAGAAAATAGCCCATAGAGTGTGATTTCTCTCAGGAGAGACAAAT	590
Db	11632	CTGCGATGCCATCAAGAAAACAGGCCATCAGAGTGTGCTGATTTCTCTCAGGAGAGACAAAT	11573
Qy	591	ATAAAAAGACAACCTCATCAGCTTTGAAGGTGCCATCCAGTTAGGCATTACCCACATG	650
Db	11572	ATAAAAAGACAACCTCAACAGCTTTGAAGGTGCCATCCAGTTAGGCATTACTTACATG	11513
Qy	651	TGGGGAGCCTGAGTACAAACACAGAGCGTGATGCTCATGCAAGATTTCTACGTGGTTG	710
Db	11512	TGGGGAGCCTGAGTACCAACACAGAGCGTGATGCTCATGCAAGATTTCTACGTGGTTG	11453
Qy	711	AGAGTATCTTTTCCAGTGAAGGAGCAACTGAGCCCTGCTCATCACTACAATGACT	770
Db	11452	AGAGTATCTTTTCCCAAGTGAAGGAGCAACTGAGCCCTGCTCATCACTACAATGACT	11393
Qy	771	TTCTGTTTCAAGACCTATGCATCTGTGCTTCCGCTACTCCGGGAGCTATTTGGTATCC	830
Db	11392	TCCGTTTCAAGACCTATGCGCGGTGCTTCCGCTACTTTCCGGAGCTATTTGGTATCC	11333
Qy	831	GGCCCGATGATTAAGTGTATTTCCCTCTGCAGTGAGCCGCTGATTAAGTGTATGAGTATCC	890
Db	11332	GGCCCGATGATTAAGTGTATTTCCCTCTGCAGTGAGCCGCTGATTAAGTGTATGAGTATCC	11273
Qy	891	GAGTAGTGGTTCCATTTCTATGTTGTTCCAGCAGATGAGTTCATTAATTAAGACAGTCC	950
Db	11272	GAGTAGTGGTTCCCTGTTCTATGTTGTTCCAGCAGATGAGTTCATTAATTAAGACAGTCC	11213
Qy	951	AACATAAGGCGGGAATTTCTGCAGAGCTGCTTCCAGGATCTACATGAACCTCAACC	1010
Db	11212	AACATAAGGCGGAGTTTCTGCAGAGCTGCTTCCAGGATCTACATGAACCTCAACC	11153
Qy	1011	AGAACCTTCGAGCTTTGCTGCTAAATCTATGAGCTGCTACTGTGTGAGGAGGTGGCA	1070
Db	11152	AGAACCTTCGAGCTTTGCTGCTAAATCTTTTGGACTGCTACTGTGTGAGGAGGTGGCA	11093
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Db	11032	AATATG	ACCTCAAAG	CGCTCAAC	CTACAAACGGCGGGCTTCCAG	AAAGAGCGAGAGAAAGC	10973							
Qy	11191	CTCTTCC	CACATTTAAG	ACCTAGACTTTTACAAG	ACATCCCTGTATGGTCTTTTTTTGG	1250								
Db	10972	CTCTTCC	CACATTTAAG	ATCTAGACTTTTACAAG	ACATCCCTGTATGGTCTTTTTTTGG	10913								
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Db	10912	ATGCTG	ACATGTACAA	CGCTCTCTGTATAG	ACCTCTGCAGCGTGACTGTTTTG	CTGTGCTGCAGA	10853							
Qy	1311	GCTTCA	AGATTAATGG	ATTACAG	CCCTTTTGATGTCAATCC	ATAATAGATCATGCA	CAAC	1370						
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Qy	1428	AAAGGC	CTCTATTCC	ACAGCCATGG	AATCCATCCAGG	AGAGGCTCGACGGGGTGTA	1487							
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Qy	1488	CCATGG	AGACTGATG	ACCATATGG	TGGTGATCCCTCGCCG	GAATAGTAAAGGGAAAGGC	1547							
Db	10672	CCA	TGGAGCGATG	ACCATATGG	TGGTGATCCCTGCTC	AGATTAAGGGGNAAGGC	10613							
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Db	10552	AGCA	CTTTGGAAG	CCCGTGGTACATG	ATGGGACGCTGTCT	CAGTGCATCGCC	CAGGCT	10493						
Qy	1668	TCTAG	CTGAACGGTTCC	AGCGCTTATG	TGCAACACACAGTATTTA	AAGAAGATTC	CTCTTGA	1727						
Db	10492	TCTAG	CTGAACGGTTCA	GCACTTATG	TGCAACGCA	GTATTTAAG	AAAGATCC	CTTGA	10433					
Qy	1728	AGC	TTCTCTTCC	AAAAAGTTCCG	TCTG	CTCATCTTCTCGG	CGACG	AGGCTCCA	1787					
Db	10432	AGC	TTCTCTTCC	AAAAAGTTCCG	TCTG	CTCATCTTCTCG	ATACGGG	CTCCA	10373					
Qy	1788	GTGG	CAACTCTCTG	ATCTTAC	CGCCATCGG	TCTCTGGG	AAACA	CAAGGCA	CAAGTGA	1847				
Db	10372	GTGG	CAACTCTCTG	ATCTTAC	CAGCCATTTGG	TCTCTGAG	AAACA	CACAAGT	CACAAGTG-	10314				
Qy	1848	CAAC	AAAGG	CAGAGTGG	AGCGGTTAC	CTTGGTCTG	ATGCTTAT	TA	CTCTCAGA	1907				
Db	10313	--	ATAAG	GTGCA	GTGGACG	GTTCAC	TTTGGTCTG	ATG	ATGTTTAC	CTCAGA	10256			
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Db	10255	CCT	CAGATCC	ACCTTTGG	AGGAATCAG	TGAGG	CGCTC	ACTAT	TACTGA	CCACAGTTTC	10197			
Qy	1961	TCAC	CTTAGTTGG	AGAC	TTTGG	AAATGCTA	CTACAAG	TACA	CACTTG	GA	AAAGCTT	2020		
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Qy	2021	GAAG	TTGCAG	AGTCA	GAGTTCAC	CCATTA	AGCGAA	AGCCCTC	AGAAG	ACCTG	GAACAGA	2080		
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Qy 481 CT---CAGCATCTGAATCAAGAGCCATGGCATCTGA----- 516
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OM nucleic - nucleic search, using sw model

Run on: May 13, 2003, 02:04:59 ; Search time 494 Seconds
(without alignments)
9340.412 Million cell updates/sec

Title: US-10-003-354-3
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Scoring table: IDENTITY NUC
Gapop 10.0 , Gapext 1.0

Searched: 783854 seqs, 621352466 residues

Total number of hits satisfying chosen parameters: 1567708

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 - 12: /cgn2_6/ptodata/1/pubpna/US10_PUBCOMB.seq:*
 - 13: /cgn2_6/ptodata/1/pubpna/US60_NEW_PUB.seq:*
 - 14: /cgn2_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Query Match %	Score	Length	ID	Description
C 1	551.4	14.9	553	10	US-09-998-598-1241
2	469.8	12.7	598	10	US-09-864-761-13058
3	408	11.0	1899	10	US-09-954-456-827
C 4	356.2	9.6	451	9	US-09-292-758-55
5	312.2	8.4	398	9	US-09-918-995-3253
6	285	7.7	346	10	US-09-864-761-29620
7	152	4.1	350	10	US-09-783-590-9100
8	102.8	2.8	497	9	US-09-918-995-5650
9	75	2.0	2580	9	US-09-938-842A-2662
10	73.8	2.0	1266	9	US-10-012-055-3
11	73.8	2.0	3224	9	US-10-012-055-1
12	54.2	1.5	422	10	US-09-878-574-3267
13	52.6	1.4	337	10	US-09-878-574-3268
14	45.6	1.2	1837	10	US-09-833-381-1934
15	44.8	1.2	671	9	US-10-184-644-346
16	44.8	1.2	671	9	US-10-184-634-346
17	44	1.2	5979	9	US-10-239-676-18
18	43.6	1.2	11812	9	US-10-239-676-210
19	42.4	1.1	345	10	US-09-783-590-2746

ALIGNMENTS

RESULT 1

US-09-998-598-1241/c
; Sequence 1241, Application US/09998598
; Patent No. US20020150922A1
; GENERAL INFORMATION:
; APPLICANT: Stolk, John A.
; APPLICANT: Xu, Jiangchun
; APPLICANT: Chenault, Ruth A.
; APPLICANT: Meagher, Madelein Joy
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
; TITLE OF INVENTION: DIAGNOSIS OF COLON CANCER
; FILE REFERENCE: 210121.561
; CURRENT APPLICATION NUMBER: US/09/998,598
; CURRENT FILING DATE: 2001-11-16
; NUMBER OF SEQ ID NOS: 2606
; SOFTWARE: Corixa Invention Disclosure Database
; SEQ ID NO 1241
; LENGTH: 553
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-998-598-1241

Query Match	14.9%	Score 551.4	DB 10	Length 553
Best Local Similarity	99.8%	Pred. No. 6.7e-154		
Matches 552	Conservative	0	Mismatches 1	Indels 0
Gaps	0			
Qy	1767	TCCTCGCGCAGCAGGCTCCAGTGGCAACTCCCTGCATTACTTACCGCCATCGGTCTCTG	1826	
Db	553	TCCTCGCGCAGCAGGCTCCAGTGGCAACTCCCTGCATTACTTACCGCCATCGGTCTCTG	494	
Qy	1827	GGGAACAACAAGGCAACAAGTGCACAACAAGGCAAGTGGAGCCAGGCGTTCACTTGGTC	1886	
Db	493	GGGAACAACAAGGCAACAAGTGCACAACAAGGCAAGTGGAGCCAGGCGTTCACTTGGTC	434	
Qy	1887	GTCTGTATGTTTACCTCAGACTCCACCTTTGGAGGAATCAGTGAGGCTCGCTATTC	1946	
Db	433	GTCTGTATGTTTACCTCAGACTCCACCTTTGGAGGAATCAGTGAGGCTCGCTATTC	374	
Qy	1947	CTGACCCCGAGTTTCTCACTTCTAGTTGGAGAGACTTTTGCAAAATGCTAACTACAGTACAA	2006	
Db	373	CTGACCCCGAGTTTCTCACTTCTAGTTGGAGAGACTTTTGCAAAATGCTAACTACAGTACAA	314	

Qy	3289	GGGAAAGAGGGGGCTGGTATC--TCAGGCAGATTGTGAATT-CCTGTTCTAT-CCCT	3344
Db	432	GGGAAAGAGGGGGCTGGTATCCTCAGGCCAGATTGTGAATTTCCCTGTTCTATCCCT	373
Qy	3345	TCTCTATCCCA-CCCTGGCTTGATAATATGTAGCCCATACCCCAATACTGCTATAT	3403
Db	372	TCTCTATCCACCCCTGGCTTGATAATATGTAGCCCATACCCCAATACTGCTATAT	313
Qy	3404	TAGACACCC-CCAGCCAGTTCCTGGCTGCCGTCTTTGCTGCCATGTTTTTACAGAAG	3462
Db	312	TAGACACCCNCCAGCCAGTTCCTGGCTGCCGTCTTTGCTGCCATGTTTTTACAGAAG	253
Qy	3463	GAAAGAAATCTTGTCTATTTTTTTTTTTCATAAATTACTATTTATGATGATATTAAGTGTTTT	3522
Db	252	GAAAGAAATCTTGTCTATTTTTTTTTTTCATAAATTACTATTTATGATGATATTAAGTGTTTT	193
Qy	3523	ATTAAGACAGAGTTCCTGTTAGGGTGGAGGGAATATTTAGGGAGGGCTGGGCTTAG	3582
Db	192	ATTAAGACAGAGTTCCTGTTAGGGTGGAGGGAATATTTAGGGAGGGCTGGGCTTAG	133
Qy	3583	GGAAGGAATGGGAGACAAATTTTTTAAATGATGTTACTATTTGGCCCTACTTTGTATT	3642
Db	132	GGAAGGAATGGGAGACAAATTTTTTAAATGATGTTACTATTTGGCCCTACTTTGTATT	73

; TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
:
: TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY

Qy	3643	GTTTCAGAAATGCGAAATACCAATATATAAAGTGTATATATCGTTTTTAATCGTAATAAACCTTTAA	3702
Db	72	GTTTCAGAAATGCGAAATACCAATATATAAAGTGTATATATCGTTTTTAATCGTAATAAACCTTTAA	13
Qy	3703	TGAGTTATTATTA	3713
Db	12	TGAGTTATTATTA	2

RESULT 5

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RESULT 5
US-09-918-995-3253
; Sequence 3253, Application US/09918995
; Publication No. US20030073623A1
; GENERAL INFORMATION:
; APPLICANT: Hyseq, Inc.
; TITLE OF INVENTION: NOVEL NUCLEIC ACID SEQUENCES OBTAINED
; TITLE OF INVENTION: FROM VARIOUS CDNA LIBRARIES
; FILE REFERENCE: 20411-756
; CURRENT APPLICATION NUMBER: US/09/918,995
; CURRENT FILING DATE: 2001-07-30
; PRIOR APPLICATION NUMBER: US/09/235,076
; PRIOR FILING DATE: 1999-01-20
; NUMBER OF SEQ ID NOS: 38054
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 3253
; LENGTH: 398
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-918-995-3253

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Query Match	8.4%;	Score 312.2;	DB 9;	Length 398;
Best Local Similarity	86.6%;	Pred. NO. 1.6e-82;		
Matches 344;	Conservative	0;	Mismatches 53;	Indels 0;
Gaps	0;			

Qy	2792	AGAGAGTGGGACATGGGGTAACTTTATCCTTTTGTAAACAGGAGGCAGCATGGGC	2851
Dβ	2	AGAGAGAGAGACATGGCGGACTTTTATACCTTTGTAAACGACGAAAGCCCTCCCTGGGC	61

Qy	2852	TGGAGATCATAGCCCTTCCTAGGCAGAAATCCTGTTCACTGCCAGGTATATGTAATTATT	2911
pb	53	CGACACGACCAATATCGCCCTTCTTATACGATAATGCTCTCTGACACTGCACGCTTATAGCAATATATT	121

2912 ACTATTTTGCATTTTGAAATATATCTCTGTTGTTTTCTAAATGTGAAGACTTACCAAT 2971

QY 2972 GAATTTTAGATCATCTCCAGAGGAGATTTTTTTTGGCTCTTCTCATCTTTTCCAACTG 3031

DB 182 GAGCTCTAGAGCATTCCTCCAAAGGAGATAGTGTGCTGTGCTCATCTATCCCCAACAGGG 241

QY 3032 TTCTCCTGTTTGTGGAGCTAAGGTAAGAGAGGGGACACTTCTGTCGTGTTTAAACAGACAGTC 3091

DB	QY
242	3092
TTGTTCTGTCGAGGGGCTAAGGTAAGAGAGGGGACATTCTCTCTGTTTAAACAGACAGTC	CATATCTGTGAGGGCAGCAAAATATTTTCTTAACTCATGGGAGACAGCAGATTTCTTGCC
301	3151

Db	302	CATATCTGTGAGGCCAGCAATATTTCTTAACTCATGGGAGACAGCAGATTCTTGCC	361
Qy	3152	TTGGTGAGGTTCATTGCTGTGCCATATGTCCTACCCCC	3188

Db . 362 TTGGTGAGGTCATTGCTGTGCCATATGTCTACCCCC 398

RESULT 6

RESULT 6
US-09-864-761F-29620
; Sequence 29620, Application US/09864761
; Patent No. US20020048763A1
; GENERAL INFORMATION:
; APPLICANT: Penn, Sharon G.
; APPLICANT: Rank, David R.
; APPLICANT: Hanzel, David K.
; APPLICANT: Chen, Wensheng

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1  TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES
2  TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
3  FILE REFERENCE: Aescmca-X-1
4  CURRENT APPLICATION NUMBER: US/09/864,761
5  CURRENT FILING DATE: 2001-05-23
6  PRIOR APPLICATION NUMBER: US 60/180,312
7  PRIOR FILING DATE: 2000-02-04
8  PRIOR APPLICATION NUMBER: US 60/207,456
9  PRIOR FILING DATE: 2000-05-26
10 PRIOR APPLICATION NUMBER: US 09/632,366
11 PRIOR FILING DATE: 2000-08-03
12 PRIOR APPLICATION NUMBER: GB 24263.6
13 PRIOR FILING DATE: 2000-10-04
14 PRIOR APPLICATION NUMBER: US 60/236,359
15 PRIOR FILING DATE: 2000-09-27
16 PRIOR APPLICATION NUMBER: PCT/US01/00666
17 PRIOR FILING DATE: 2001-01-30
18 PRIOR APPLICATION NUMBER: PCT/US01/00667
19 PRIOR FILING DATE: 2001-01-30
20 PRIOR APPLICATION NUMBER: PCT/US01/00664
21 PRIOR FILING DATE: 2001-01-30
22 PRIOR APPLICATION NUMBER: PCT/US01/00669
23 PRIOR FILING DATE: 2001-01-30
24 PRIOR APPLICATION NUMBER: PCT/US01/00665
25 PRIOR FILING DATE: 2001-01-30
26 PRIOR APPLICATION NUMBER: PCT/US01/00668
27 PRIOR FILING DATE: 2001-01-30
28 PRIOR APPLICATION NUMBER: PCT/US01/00663
29 PRIOR FILING DATE: 2001-01-30
30 PRIOR APPLICATION NUMBER: PCT/US01/00662
31 PRIOR FILING DATE: 2001-01-30
32 PRIOR APPLICATION NUMBER: PCT/US01/00661
33 PRIOR FILING DATE: 2001-01-30
34 PRIOR APPLICATION NUMBER: PCT/US01/00670
35 PRIOR FILING DATE: 2001-01-30
36 PRIOR APPLICATION NUMBER: US 60/234,687
37 PRIOR FILING DATE: 2000-09-21
38 PRIOR APPLICATION NUMBER: US 09/608,408
39 PRIOR FILING DATE: 2000-06-30
40 PRIOR APPLICATION NUMBER: US 09/774,203
41 PRIOR FILING DATE: 2001-01-29
42 NUMBER OF SEQ ID NOS: 49117
43 SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
44 SEQ ID NO 29620
45 LENGTH: 346
46 TYPE: DNA
47 ORGANISM: Homo sapiens
48 FEATURE:
49 OTHER INFORMATION: MAP TO AL096800.20
50 OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 0.72
51 OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 0.53
52 OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 0.53
53 OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 0.65
54 OTHER INFORMATION: SWISSPROT HIT: P38994, EVALUATE 4.00e-07
55 OTHER INFORMATION: NT HIT: g14505814, EVALUATE 1.00e-125
56 OTHER INFORMATION: EST HUMAN HIT: BE794576.1, EVALUATE 1.00e-125
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Query Match 7.7%; Score 285; DB 10; Length 346;
Best Local Similarity 92.3%; Pred. No. 28-74;
Matches 300; Conservative 0; Mismatches 25; Indels 0; Gaps 0;

Oy 1400 TCAGTTGATACTCGAAGACCGGGCCCCCAAAAGGCTCTGTATTCCACAGCATGGGAATCC 1459
|||||
Dh 22 TCAATCCACAATCATAAAGAAGTGGCTCCCCAAAAGAGCTCTGTATTCACACAGCATGGGAATTC 81

QY 1460 ATCCAGGAGAGGCTCGACGGGTGTACCATGGAGACTGATGACCATATGGGTGGCATC 1519

Qy 1520 CTGCCCCGAATAGTAAGGGGAAAGCTTCTGCTTTATATTGGCATCATTGACATTCTA 1579

DB 142 CCTGCTCAGAAATAGTAAAGGGGAAGGCTTCCTTTATATATGGCAATCATTTGACATTTCTA 201

Qy	1580	CAGTCTTACAGGTTTCTTAAAGATTGGAGCACTCTTGGAAAGCCCTGGTATCATGACGGA	1639
Db	202	CAGTCTTACAGGTTTCTTAAAGATTGGAGCACTCTTGGAAAGCCGTGATCATGATGGG	261
Qy	1640	GACACTGTCTCAGTGTGATCGCCAGCGCTTCTACGCTGAACGGTTCACAGCGTTCATGTGC	1699
Db	262	GACGCTGTCTCAGTGTGATCGCCAGCGTTCACGCTGAACGGTTCACAGCACTTCATGTGC	321
Qy	1700	AACACAGATATTTAAGAAGATTCGCT	1724
Db	322	AAGCGAGTATTTAAGAAGATTCGCT	346

RESULT 7

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US-09-783-590-9100
; Sequence 9100, Application US/09783590
; Patent No. US20020110850A1
; GENERAL INFORMATION:
; APPLICANT: Dillion, Patrick J.
; APPLICANT: Haseltine, William A.
; APPLICANT: Li, Haodong
; APPLICANT: Rosen, Craig A.
; APPLICANT: Ruben, Steven M.
; TITLE OF INVENTION: Human Genes, Sequences, and Expression Products 16.2
; FILE REFERENCE: PO-16.2C1
; CURRENT APPLICATION NUMBER: US/09/783,590
; CURRENT FILING DATE: 2000-02-15
; PRIOR APPLICATION NUMBER: 08/420,856
; PRIOR FILING DATE: 1995-04-12
; PRIOR APPLICATION NUMBER: 08/346,731
; PRIOR FILING DATE: 1994-11-21
; NUMBER OF SEQ ID NOS: 12485
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 9100

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Query Match 4.1%; Score 152; DB 10; Length 350;
Best Local Similarity 69.9%; Pred. No. 1.1e-34;
Matches 232; Conservative 0; Mismatches 95; Indels 5; Gaps 3;

[illegible]

RESULT 8

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RESOLUT 8
US-09-918-995-5650
; Sequence 5650, Application US/09918995
; Publication No. US20030073623A1
; GENERAL INFORMATION:
; APPLICANT: Hyseq, Inc.
; TITLE OF INVENTION: NOVEL NUCLEIC ACID SEQUENCES OBTAINED
; FROM VARIOUS CDNA LIBRARIES
; FILE REFERENCE: 20411-756
; CURRENT APPLICATION NUMBER: US/09/918,995
; CURRENT FILING DATE: 2001-07-30
; PRIOR APPLICATION NUMBER: US/09/235,076
; PRIOR FILING DATE: 1999-01-20

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; NUMBER OF SEQ ID NOS: 38054
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 5650
; LENGTH: 497

; TYPE: DNA

; ORGANISM: Homo sapiens

; FEATURE:

; NAME/KEY: misc feature

; LOCATION: (1)_(497)

; OTHER INFORMATION: n = A,T,C or G

US-09-918-995-5650

Query Match 2.8%; Score 102.8; DB 9; Length 497;

Best Local Similarity 65.5%; Pred. No. 7.5e-20;

Matches 182; Conservative 0; Mismatches 92; Indels 4; Gaps 2;

QY 1473 CTCGACGGGGTGTACCATGGAGATGATGACCATATATGGGTGGGATCCCTGCCCGGA-AT 1531

Db 76 CTGGAGATGGGATAATCACAGAGAACTTATACAAATGGGAGGCATTCCAGCTAAAAAGCG 135

QY 1532 AGTAAAGGGGAAGCCTCTGCTTTATATGGCATCTTACATCTGACATCTACAGTCTTACAGG 1591

Db 136 CGTAGGGAGAAAACACTACTTTTATATGGGCAATATGACATCTGCAATCATATAGG 195

QY 1592 TTTGTTAAGAGTTGGAGCACTCTTGGAAAGCCTGTGTACATGACGGAGACACTGTCTCA 1651

Db 196 TTAATGAAGATTAGAACAATCTCTGGAAAGCTCTTGTATATGATGGGACACTGTTTCT 255

QY 1652 GTGATGCCAGGCTTACGCTGAAGGTTTCAGGCTTCATGTGCAACACAGATATT 1711

Db 256 GTTCATAGACCAAGCTTTATGACAGACAGATTTCTTAAGTTTCAATGAATTCAGAGTTTTC 315

QY 1712 AAGAAGATTC---CCTTGAAGCCTTCTCTTCCAAAAA 1746

Db 316 AAGAAATTCAGCTTTGAAGGCTTACCGTCTAAGAA 353

RESULT 9

US-09-938-842A-2662

; Sequence 2662, Application US/09938842A

; Patent No. US20020160378A1

; GENERAL INFORMATION:

; APPLICANT: Harper, Jeff

; APPLICANT: Kreps, Joel

; APPLICANT: Wang, Xun

; APPLICANT: Zhu, Tong

; TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS CONTAINING

; FILE REFERENCE: SAME, AND METHODS OF USE

; CURRENT APPLICATION NUMBER: US/09/938,842A

; PRIOR FILING DATE: 2001-08-24

; PRIOR FILING DATE: 2000-08-24

; PRIOR FILING DATE: 2000-08-24

; PRIOR FILING DATE: 2001-01-16

; PRIOR FILING DATE: 2001-06-22

; NUMBER OF SEQ ID NOS: 5379

; SEQ ID NO 2662

; LENGTH: 2580

; TYPE: DNA

; ORGANISM: Arabidopsis thaliana

US-09-938-842A-2662

Query Match 2.0%; Score 75; DB 9; Length 2580;

Best Local Similarity 49.2%; Pred. No. 5.3e-11;

Matches 325; Conservative 0; Mismatches 315; Indels 21; Gaps 4;

QY 716 ATCTTCTTTTCCAGTGAAGGAGCAACTGACCCCTGCTCATCACTACAAATGACTTTTCT 775

Db 1426 ATGTTCTTCCCTAGAGCGGCTCCAAATTTTACCCCTCCACACAATCTGTGACTTCTCC 1485

QY 776 TTCAAGACCTATGCACTGTGTCCTTCCGCTACTTCCGGGAGCTATTTGGTATCCGGCCC 835

Db 1486 TCGAAGAGACTATTGTCCCATGTTTTCAGGAATTTAAGCAGATGTTCAAGTTAGATGCT 1545

QY 836 GATGATTACTTTGATTTCCCTCTGCAGTGAGCCG---CTGATTGAACCTCTGTAGCTCTGGA 892

Db 1546 GCAGAGTACATGATGCTATTGTTGGTGTGATGGCTGCACAGAAATTTCTTCCCGGG 1605

QY 893 GCTAGTGGTTCCCTATTCTATTGTCTCAGGAGATGATGTTCAATTATTAAGACAGTCCAA 952

Db 1606 AAAAGTGGCAGTATCTTCTACCTTTCTCATGACGACAGATTTGTGTATCAAGACTTTAAAA 1665

QY 953 CATAAAGAGCGGGAATTTCTGCAGAAAGCTGTTCCAGGATACATGAAACCTCAACCCAG 1012

Db 1666 AAGCTGTGAGTTGACGTTTCTACTCAGAAATGTTGCCCTAAGTACTATGAACATGTAGGGAC 1725

QY 1013 AACCTCGGACTTTGCTGCTAAATTTCTATGGAATGATCTGTGT---GCAGGAGGTGGC 1069

Db 1726 CATGAAAAACACACTTATAACCAATTTTGGAGTTTCAAGAAATACCCCTCAAGTGGGT 1785

QY 1070 AAGAACATTCGGATTCTGTTGATGAACAATCTTTTACCAGATCGGTAAATGCAATATC 1129

Db 1786 AAAAGGTACGCTTTGTAGTCAATGGGAATATGTTTGCACAGAAATGAAGATTCATCGT 1845

QY 1130 AAATATGACCTCAAGGCTCAACCTACAAACGCGGGCTTCCAGAAAGAGCGAGAGAAG 1189

Db 1846 CGTTATGATCTAAGGGTTCAAC---TCAAGGAGATTTACTGAAAAGATCAAAATCCAA 1902

QY 1190 CTTCTTCCACATTTAAAGACCTAGACTCTTTTACAAGACATCCCTGATGCTCTTTTTTG 1249

Db 1903 GAGAAGACCACTTGAAGATCT-----TGATCTAGCTTATGAATTTTCATATG 1950

QY 1250 GATGCTGACATGTACAAACGCTCTCTGTAAGACCCCTGACGGTGTGTTGGTGTGCGAG 1309

Db 1951 GACAAGCTGTTACGGGAAGCCCTTTTCAAGCAAAATTTACTTAGACTGCTGTTTTGGAA 2010

QY 1310 AGCTTCAAGATATGATTTACAGCCTCTTGTATGTCATCAATCAATAATAGATCATGACAA 1369

Db 2011 TCGCTGAACATCATTCAGTACAGTCTTTTACTGGGATTACATTTTATAGCTCCTGCGCAA 2070

QY 1370 C 1370

Db 2071 C 2071

RESULT 10

US-10-012-055-3

; Sequence 3, Application US/10012055

; Patent No. US20020164750A1

; GENERAL INFORMATION:

; APPLICANT: Meyers, Rachel A.

; APPLICANT: Rudolph-Owen, Laura A.

; TITLE OF INVENTION: 56634, A NOVEL HUMAN PHOSPHATIDYLINOSITOL 4-PHOSPHATE 5-KINASE

; FILE REFERENCE: 10448-114001

; CURRENT APPLICATION NUMBER: US/10/012,055

; CURRENT FILING DATE: 2001-11-13

; PRIOR APPLICATION NUMBER: 60/248,325

; PRIOR FILING DATE: 2000-11-14

; NUMBER OF SEQ ID NOS: 5

; SOFTWARE: FastSeq for Windows Version 4.0

; SEQ ID NO 3

; LENGTH: 1266

; TYPE: DNA

; ORGANISM: Homo sapiens

US-10-012-055-3

Query Match 2.0%; Score 73.8; DB 9; Length 1266;

Best Local Similarity 48.8%; Pred. No. 7e-11;

Matches 297; Conservative 0; Mismatches 297; Indels 15; Gaps 3;

QY 756 ATCACTACATGACATTCGTTTCAAGACCTATGCACTGTGCTTCGCTTCCGCTACTTCCGG 815

Db 278 ATCTGCCAGTCAATTTCAAGTTCAGGAGTATGTGTCCTCCAGGCTTCTTCAGGAACCTCCGTG 337

782 ACCTATGCACCTGTTGCTTCGGCTACTTCGGGAGCTATTGCTATCCGCGCCGATGAT 841
Db 112 GATTATGTCCTCATGGTGTAAAGATTTGAGAACTGGTCAAGATGATGCTGCCGAT 171
Qy 842 TACTGTATTCCTCTCT---GCAGTGAGCGCTGATTTGAATCTCTAGCTCTGGAGCTAGT 898
Db 172 TACATGATGTCATTTGTGGAAACGATACCTCTGAGGGAATCTATCTTCCGGGAAAAGT 231
Qy 899 GGTTCCTATTCTATGTCAGGAGCATGATGATTTCAATTAAGACAGTCCCAACATAAA 958
Db 232 GGTAGTGTCTTCTCTCTCTCAAGATGATGCTTTTCATGATCAAGACACTCCGGAAGATT 291
Qy 959 GAGCGGAATTTCTGCAGAACCTCTCCAGGATA 993
Db 292 GAATCAAGTCCCTTCAAGNATGCTTCCAGACTA 326

RESULT 13
US-09-878-574-3268
; Sequence 3268, Application US/09878574
; Patent No. US20020110548A1
; GENERAL INFORMATION:
; APPLICANT: Byrum, Joseph R.
; APPLICANT: La Rosa, Thomas J.
; APPLICANT: Thompson, Michael D.
; TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated with
; FILE OF INVENTION: Plants
; FILE REFERENCE: 38-21(15401)B
; CURRENT APPLICATION NUMBER: US/09/878, 574
; CURRENT FILING DATE: 2001-12-21
; PRIOR APPLICATION NUMBER: 09/333,535
; PRIOR FILING DATE: 1999-06-14
; NUMBER OF SEQ ID NOS: 15775
; SEQ ID NO 3268
; LENGTH: 337
; TYPE: DNA
; ORGANISM: Glycine max
; OTHER INFORMATION: Clone ID: LIB3028-013-Q1-B1-E9
US-09-878-574-3268

Query Match 1.4%; Score 52.6; DB 10; Length 337;
Best Local Similarity 52.0%; Pred. No. 5.6e-05;
Matches 143; Conservative 0; Mismatches 129; Indels 3; Gaps 1;

Qy 722 TTTCCTCAAGAGTCTTCAATTAACACCTACTCTAGTCAGTCAATGATGCTTTCGTTCAAG 781
Db 52 TTTCCTCAAGAGTCTTCAATTAACACCTACTCTAGTCAGTCAATGATGCTTTCGTTCAAG 111
Qy 782 ACCTATGCACCTGTTGCTTCGGCTACTTCGGGAGCTATTGCTATCCGCGCCGATGAT 841
Db 112 GATTATGTCCTCATGGTGTAAAGATTTGAGAACTGGTCAAGATGATGCTGCCGAT 171
Qy 842 TACTGTATTCCTCTCTGAGT---GAGCGGTGATTTGAATCTCTAGCTCTGGAGCTAGT 898
Db 172 TACATGATGTCATTTGTGGAAACGATACCTCTGAGGGAATCTATCTTCCGGGAAAAGT 231
Qy 899 GGTTCCTATTCTATGTCAGGAGCATGATGATTTCAATTAAGACAGTCCCAACATAAA 958
Db 232 GGTAGTGTCTTCTCTCTCTCAAGATGATGCTTTTCATGATCAAGACACTCCGGAAGATT 291
Qy 959 GAGCGGAATTTCTGCAGAACCTCTCCAGGATA 993
Db 292 GAATCAAGTCCCTTCAAGNATGCTTCCAGACTA 326

RESULT 14
US-09-833-381-1934
; Sequence 1934, Application US/09833381
; Patent No. US20020132090A1
; GENERAL INFORMATION:
; APPLICANT: Robison, Keith E.
; TITLE OF INVENTION: No. US20020132090A1 Nucleic Acid and Protein Homologs

FILE REFERENCE: 5800-119
CURRENT APPLICATION NUMBER: US/09/833,381
CURRENT FILING DATE: 2001-04-11
PRIOR APPLICATION NUMBER: 09/516,448
NUMBER OF SEQ ID NOS: 2050
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 1934
LENGTH: 1837
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc feature
LOCATION: (1)---(1837)
OTHER INFORMATION: n = A,T,C or G
US-09-833-381-1934

Query Match 1.2%; Score 45.6; DB 10; Length 1837;
Best Local Similarity 50.4%; Pred. No. 0.025;
Matches 139; Conservative 0; Mismatches 134; Indels 3; Gaps 1;

Qy 1086 TGGTATGAACTATCTTTTACCAAGATCGGTAAATGATATCAAAATATGACCTCAAAG 1145
Db 4 TTGTGATGCGCAATATGTTTAGCCACCGTCTTCTGTGCACAGGAAGTATGACCTCAAGG 63
Qy 1146 GCTCAACCTACAAACCGCGGCTTCCAGAAAGCGAGAGAGCTCTTCCACATTTA 1205
Db 64 GTTCCCTAGTGTCCCGGAAGCCAGGATAGGAAGTTAAAGATTTGCCCCCTTA 123
Qy 1206 AAGACCTAGACTTCTTTACAGACATCCCTGATGGTCTTTTTTGGATGCTGACATGTACA 1265
Db 124 AGGATATGACCTTCTCAACAAGAACCCAGAAAGTATATATTGTTGAAGAGGAGAAAAA 183
Qy 1266 AGCTCTCTGTAAGACCTTGCAGCGTACTGTTTGGTGTGCGAGCTTCAAGATTAATGG 1325
Db 184 TATTTCTGG---AGAGCTGGAAGAGAGATGTGGAGTTTCTAGTGCACTCAAGATCATGG 240
Qy 1326 ATTACAGCTCTTGTATGTCAATCCATTAATATAGATC 1361
Db 241 ACTACAGCTTCTGTAGCAATCCAGCATCATTC 276

RESULT 15
US-10-184-644-346
; Sequence 346, Application US/10184644
; Publication No. US20030044930A1
; GENERAL INFORMATION:
; APPLICANT: Baker, Kevin P.
; APPLICANT: Chen, Jian
; APPLICANT: Desnoyers, Luc
; APPLICANT: Goddard, Audrey
; APPLICANT: Godowski, Paul J.
; APPLICANT: Gurney, Aubin L.
; APPLICANT: Pan, James
; APPLICANT: Smith, Victoria
; APPLICANT: Watanabe, Colin K.
; APPLICANT: Wood, William I.
; APPLICANT: Zhang, Zemin
; TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
; FILE REFERENCE: P3430RIC227
; CURRENT APPLICATION NUMBER: US/10/184,644
; CURRENT FILING DATE: 2002-06-28
; Prior Application removed - See File Wrapper or Palm
; NUMBER OF SEQ ID NOS: 612
; SEQ ID NO 346
; LENGTH: 671
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-184-644-346

Query Match 1.2%; Score 44.8; DB 9; Length 671;
Best Local Similarity 6.2%; Pred. No. 0.02;


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Matches 24; Conservative 150; Mismatches 215; Indels 0; Gaps 0;
Qy 132 CTGTGAAGGGGAAGTATCCCTGTGGAAGCGGTAAACTTGTGAGGGGTGCGGGA 191
   : : | : : : : : : : : : : : : | : : : : : : : :
Db 175 SDLQASVSPSEBENSESEKTSQDFTPEKAAVRAPRGFLGGRKKKAPSADS 234
   : : : : : : : : : : : : : : : : : : : : : : : :
Qy 192 CGTGATCTTCCCATCCAGGCGAATGGTGTGCCTTGAGCTGGTCCAGGACCGGCT 251
   : : : : : : : : : : : : : : : : : : : : : : : :
Db 235 DSKADSDGAKPEPVAMAKSASSSSSSSSSSSDSVKPPGRKPAEKPLPKPRKPKP 294
   : : : : : : : : : : : : : : : : : : : : : : : :
Qy 252 CGAGTGTCGAGGAGCGCGGAGGGCGGAGGTGGCCACAGAACCGGGTCTG 311
   : : : : : : : : : : : : : : : : : : : : : : : :
Db 295 ERPFSSSSSDSDSDVRISEWKRRDEARRRELEARRRREBEELRLRLEKEKEKERR 354
   : : : : : : : : : : : : : : : : : : : : : : : :
Qy 312 TAAAGAGACGTTGGAGAGATTTCGATTCGAGAGAGAGAACCGGATTGAAAGAGAGCC 371
   : : : : : : : : : : : : : : : : : : : : : : : :
Db 355 ERADRGAEARGSGGDELREDDEPVKRGKRGPPSSDSEPEALELEREAKKSAK 414
   : : : : : : : : : : : : : : : : : : : : : : : :
Qy 372 AGCGCGTGAGGGGAGGGGCTCTAAGATGGCGTCCGCTCCTCCGGGCGGTCGCTT 431
   : : : : : : : : : : : : : : : : : : : : : : : :
Db 415 KPQSSSTEPARKPGQKEKRVPEKQAKPVKVERTRKRSEGFMDRKVKKKKPSVEEK 474
   : : : : : : : : : : : : : : : : : : : : : : : :
Qy 432 CGGTCGGTTCCTTCATCCCGGCTCCCTCTCTGTACCTTGCTCCTCAGCATCTG 491
   : : : : : : : : : : : : : : : : : : : : : : : :
Db 475 LQKLHSEIKFALKVDSPDVKCLNABELGLQVTSQILQKNTDVTATLKIRRYKANKD 534
   : : : : : : : : : : : : : : : : : : : : : : : :
Qy 492 GAATCAAGAGACCATGCGCATCTGAGGTG 520
   : : : : : : : : : : : : : : : : : : : : : : : :
Db 535 VMEKAAEVYTRLKSRLGPKIEAVQKYNK 563
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Search completed: May 13, 2003, 05:22:52
Job time : 514 secs

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GenCore version 5.1.5
Copyright (c) 1993 - 2003 CompuGen Ltd.

OM nucleic - nucleic search, using sw model

Run on: May 13, 2003, 00:45:33 ; Search time 185 Seconds
(without alignments)
6155.085 Million cell updates/sec

Title: US-10-003-354-3

Perfect score: 3713

Sequence: 1 attaacaggcgtggttagg.....aaactttaatgagttatttta 3713

Scoring table: IDENTITY_NUC

Gapop 10.0 , Gapext 1.0

Searched: 441362 seqs, 153338381 residues

Total number of hits satisfying chosen parameters: 882724

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents NA:*

- 1: /cgn2_6/ptodata/1/ina/5A COMB.seq.*
- 2: /cgn2_6/ptodata/1/ina/5B COMB.seq.*
- 3: /cgn2_6/ptodata/1/ina/6A COMB.seq.*
- 4: /cgn2_6/ptodata/1/ina/6B COMB.seq.*
- 5: /cgn2_6/ptodata/1/ina/PTCUS COMB.seq.*
- 6: /cgn2_6/ptodata/1/ina/backfilee1.seq.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	55.4	1.5	7218	1	US-08-232-463-14
2	51.4	1.4	7218	1	US-08-232-463-14
3	42.6	1.1	7211	1	US-08-451-405A-2
4	38.2	1.0	87350	3	US-08-781-891-79
5	38.2	1.0	87543	4	US-09-791-211-3
6	37.8	1.0	1086	4	US-09-134-001C-1208
7	37.6	1.0	624	4	US-09-397-992A-3
8	36	1.0	624	4	US-09-397-992A-6
9	36	1.0	1983	4	US-09-453-702B-36
10	36	1.0	53526	3	US-08-658-136-2
11	36	1.0	53577	3	US-08-658-136-1
12	35.8	1.0	549	4	US-09-118-442-26
13	35.8	1.0	549	4	US-09-677-064-26
14	35.8	1.0	1164	4	US-09-134-001C-2534
15	35.8	1.0	1166	4	US-09-072-596-323
16	35.8	1.0	3095	6	5231168-1
17	35.8	1.0	19124	2	US-08-487-826B-13
18	35.6	1.0	26385	4	US-08-961-527-3
19	35.4	1.0	1590	3	US-08-747-221B-23
20	35.4	1.0	1590	4	US-09-005-051-23
21	35.4	1.0	1650	3	US-08-747-221B-21
22	35.4	1.0	1650	3	US-08-747-221B-22
23	35.4	1.0	1650	4	US-09-005-051-21
24	35.4	1.0	1650	4	US-09-005-051-22
25	35.4	1.0	1792	3	US-08-747-221B-18
26	35.4	1.0	1792	3	US-08-747-221B-20
27	35.4	1.0	1792	4	US-09-005-051-18

28	35.4	1.0	1792	4	US-09-005-051-20
C 29	35.4	1.0	2219	5	PCT-US93-07213-4
C 30	35.4	1.0	2870	5	PCT-US93-07213-3
C 31	35.4	1.0	3102	5	PCT-US93-07213-1
C 32	35	0.9	865	4	US-09-040-984-71
C 33	35	0.9	865	4	US-09-123-913-71
C 34	35	0.9	865	4	US-09-643-597-71
C 35	35	0.9	1369	1	US-08-356-340-1
C 36	35	0.9	1369	2	US-08-786-555-1
C 37	35	0.9	2566	2	US-08-488-940-19
C 38	34.6	0.9	35081	2	US-08-752-760A-1
C 39	34.4	0.9	1766	4	US-08-961-527-235
C 40	34.2	0.9	2659	3	US-08-749-522-1
C 41	34.2	0.9	2755	3	US-08-749-522-2
C 42	34.2	0.9	56516	2	US-08-996-306-1
C 43	34.2	0.9	56516	4	US-09-338-907-1
C 44	34.2	0.9	56516	4	US-09-218-207-1
C 45	34	0.9	421	4	US-08-642-274D-55

ALIGNMENTS

RESULT 1
US-08-232-463-14
; Sequence 14, Application US/08232463
; Patent No. 5670367
; GENERAL INFORMATION:
; APPLICANT: DORNER, F.
; APPLICANT: SCHEIFLINGER, F.
; APPLICANT: FALKNER, F. G.
; TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS
; NUMBER OF SEQUENCES: 52
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Foley & Lardner
; STREET: 1800 Diagonal Road, Suite 500
; CITY: Alexandria
; STATE: VA
; COUNTRY: USA
; ZIP: 22313-0299
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/232,463
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/07/935,313
; FILING DATE:
; APPLICATION NUMBER: EP 91 114 300.6
; FILING DATE: 26-AUG-1991
; ATTORNEY/AGENT INFORMATION:
; NAME: BENT, Stephen A.
; REGISTRATION NUMBER: 29,768
; REFERENCE/DOCKET NUMBER: 30472/114 IMMU
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (703) 836-9300
; TELEFAX: (703) 836-4109
; TELEX: 899149
; INFORMATION FOR SEQ ID NO: 14:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7218 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; CLONE: PTZgpt-Fls
; US-08-232-463-14

Query Match 1.5%; Score 55.4; DB 1; Length 7218;

Qy	3470	TTCTTGCTATTTTTTTTTCATAAATCTATTATGATGATTTAAAGTGTGTTTATTAAGG	3529
Db	281	TTTTTTTTTTTTTTGGTGTGTTTCCAAATCCAAAAATATCTGAATTTTTTTTTTTAGA	222
Qy	3530	ACAGAGTTCTGTGTAGGGTGGGAGGAAATATTAGGAGGAGGCGTGGGTCTTTAGGGAAGG	3589
Db	221	ATTTCTTATCATATACCGTCACAAATCTATTTTGTAGGTTCACATGTTAATAATTT	162
Qy	3590	AATGGGGAGCAACATTTTTTAAAGTGTTACTATTTGCGCTCTACTTTGTATGTTGCAGA	3649
Db	161	TAAATACAAATAAAAACTCCTTCAAAATAGAAATATTTTATCTATTTTATTTTTTAAA	102
Qy	3650	AATGGCAATACAAATATAAAGTGATATATGTTTTTAATGAATAAACTTTTAAGTACGTTA	3709
Db	101	AAATAAATAAATAAATAAAGGAAAAAACAATATACTAATCAATATATTTTCA	42
Qy	3710	T 3710	
Db	41	T 41	

```

RESULT 4
US-08-781-891-79
; Sequence 79, Application US/08781891
; Patent No. 6090620
; GENERAL INFORMATION:
; APPLICANT: Fu, Ying-Hui
; APPLICANT: Yu, Chang-En
; APPLICANT: Oshima, Junko
; APPLICANT: Mulligan, John T.
; APPLICANT: Schellenberg, Gerald D.
; TITLE OF INVENTION: GENE AND GENE PRODUCTS RELATED TO
; TITLE OF INVENTION: WERNER'S SYNDROME
; NUMBER OF SEQUENCES: 209
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: SEED AND BERRY LLP
; STREET: 6300 Columbia Center, 701 Fifth Avenue
; City: Seattle
; STATE: Washington
; COUNTRY: USA
; ZIP: 98104-7092
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/781,891
; FILING DATE: 27-DEC-1996
; CLASSIFICATION: 800
; ATTORNEY/AGENT INFORMATION:
; NAME: NO. 6090620tenburg Ph.D., Carol
; REGISTRATION NUMBER: 39,317
; REFERENCE/DOCKET NUMBER: 240052.419
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (206) 622-4900
; TELEFAX: (206) 682-6031
; INFORMATION FOR SEQ ID NO: 79:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 87350 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; US-08-781-891-79

Query Match 1.0%; Score 38.2; DB 3; Length 87350;
Best Local Similarity 47.0%; Pred. No. 7.8;
Matches 118; Conservative 0; Mismatches 133; Indels 0; Gaps 0;

QY 3449 TTTTTCACGAAGAAGATTCCTGCTATTTTTCATTAATTTACTATTTATGATG 3508
|||||
Db 45681 TTTTAGTAGTACGAAGAAATTAATCATACATAGCTATTATTTATCTTAATATACCCATG 45740
|||||

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Qy	3509	TATTTAAGTGTGTTTATTAAAGGACAGAGTTCGTGTAGGGGTGGGAGGGAATATTTGAGGGA	3568
Db	45741	GAAGAAAATGAAATTTAAATGGAAATGTAGTGTGTATTACTTGGTTTCGAGTGTGGGAAAAT	45800
Qy	3569	GGGTGGGTCTTATGGGAAAGGAATGGGGAGCAACATTTTATTAAAGTGTGTACTATTGTC	3628
Db	45801	TTATATGGTCTTTCTTAAACACGCACTGTCTAGTAGAAAATACAATGTGAGCTACATATGCAA	45860
Qy	3629	CTCTACTTTGTATTGTTTCAGAAAATGCGAAATACAATATAAAAAGTGATATATGTTTAAAT	3688
Db	45861	TTTTTAAATTTTCTAGTAGCCACATTTTAAAAAAGTAAGTGAATGCAATTTATTTTGTATAAT	45920
Qy	3689	GTAATAAACTT	3699
Db	45921	ATAATTTAAAT	45931

RESULT 5
 US-09-791-211-3
 ; Sequence 3, Application US/09791211
 ; Patent No. 6448080
 ; GENERAL INFORMATION:
 ; APPLICANT: Donna T. Ward
 ; APPLICANT: Andrew T. Watt
 ; TITLE OF INVENTION: ANTISENSE MODULATION OF WRN EXPRESSION
 ; FILE REFERENCE: RTS-0205
 ; CURRENT APPLICATION NUMBER: US/09/791,211
 ; CURRENT FILING DATE: 2001-02-23
 ; NUMBER OF SEQ ID NOS: 90
 ; SEQ ID NO 3
 ; LENGTH: 87543
 ; TYPE: DNA
 ; ORGANISM: Homo sapiens
 ; FEATURE:
 ; NAME/KEY: unsure
 ; LOCATION: 7421
 ; OTHER INFORMATION: unknown
 ; NAME/KEY: unsure
 ; LOCATION: 7427
 ; OTHER INFORMATION: unknown
 ; NAME/KEY: unsure
 ; LOCATION: 11609
 ; OTHER INFORMATION: unknown
 ; NAME/KEY: unsure
 ; LOCATION: 12605
 ; OTHER INFORMATION: unknown
 ; NAME/KEY: unsure
 ; LOCATION: 12742
 ; OTHER INFORMATION: unknown
 ; NAME/KEY: unsure
 ; LOCATION: 29370
 ; OTHER INFORMATION: unknown
 ; NAME/KEY: unsure
 ; LOCATION: 29422
 ; OTHER INFORMATION: unknown
 ; NAME/KEY: unsure
 ; LOCATION: 29979
 ; OTHER INFORMATION: unknown
 ; NAME/KEY: unsure
 ; LOCATION: 29980
 ; OTHER INFORMATION: unknown
 ; NAME/KEY: unsure
 ; LOCATION: 29981
 ; OTHER INFORMATION: unknown
 ; NAME/KEY: unsure
 ; LOCATION: 30136
 ; OTHER INFORMATION: unknown
 ; NAME/KEY: unsure
 ; LOCATION: 30140
 ; OTHER INFORMATION: unknown
 ; NAME/KEY: unsure
 ; LOCATION: 31205


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Query Match          1.0%; Score 37.8; DB 4; Length 1086;
Best Local Similarity 55.8%; Pred. No. 0.51;
Matches 72; Conservative 0; Mismatches 57; Indels 0; Gaps 0;

QY 2916 TTTTGCATTTTGAATATATCTGCTGCTTTTCTTAAATGGAAGACTTACCAATGAAT 2975
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 385 TATTCATATCAATATATGAGTCTCTTGTCTATCTTATATCAATTTACAAATTAAT 444

QY 2976 TTTAGATCAATCTCCAGAGGAGATTTTTTTTTCCTCTCTCATCTTTTCCACAGTGTCT 3035
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 445 TTTAGATGTTTCAATAGTAAATTTTGTCTGCTTTTAGCATTTATAGTCCAAATCTAT 504

QY 3036 CTTGTTTCT 3044
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 505 CTACATTAAT 513

RESULT 7
US-09-397-992A-3/c
; Sequence 3, Application US/09397992A
; Patent No. 6329175
; GENERAL INFORMATION:
; APPLICANT: Conklin, Darrell
; APPLICANT: Grant, Francis J.
; APPLICANT: Rixon, Mark W.
; APPLICANT: Kindsvogel, Wayne
; TITLE OF INVENTION: Interferon-epsilon
; FILE REFERENCE: 98-46
; CURRENT APPLICATION NUMBER: US/09/397,992A
; PRIOR FILING DATE: 1999-09-16
; PRIOR FILING DATE: 1998-09-18
; PRIOR FILING DATE: 1999-02-05
; PRIOR FILING DATE: 1999-07-08
; PRIOR FILING DATE: 1999-07-08
; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 3
; LENGTH: 624
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: This degenerate sequence encodes the amino acid
; NAME/KEY: variation
; LOCATION: (1)...(624)
; OTHER INFORMATION: n is any nucleotide
US-09-397-992A-3

Query Match          1.0%; Score 37.6; DB 4; Length 624;
Best Local Similarity 27.2%; Pred. No. 0.4;
Matches 72; Conservative 60; Mismatches 130; Indels 3; Gaps 1;

QY 3421 TTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3480
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 310 TTYCTCTCCANCCTCNARNSDATRTTNGCNCKRAANRNSWEADATYTGYNARCA 251

QY 3481 TTTTTCATATTTACTATTTATGATGATTTTAAAGTGTGTTTATTAAGGACAGAGTTCTG 3540
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 250 TYTCRTGNARDATNGCNARNGRTGNCCTTYYT---GRATYGTGNGNSWNRNSWYT 194

QY 3541 TTAGGGGTGGGAGGAATATTTAGGGAGGCTGGGTCTTTAGGGAAGGAATGGGAAGC 3600
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 193 TYTGNGGNARNARRAATTTTNCRTGNGNARRCAATGYTGDATNSWNRNGTYTGN 134

QY 3601 AACATTTTATTAAGTGTACTATTTGCTCTACTTTGTTGTTTACAGAAATGGCAATA 3660
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 133 RYTRTTNARNARVTTNARNSWYTCYTRTNACYTGNCKYGTGTGRAADATATNARYT 74

QY 3661 CAATATAAAGTGATATATGTTTT 3685
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 73 TNARRTCNARNSWRAADATNGTNGT 49

RESULT 9
US-09-453-702B-36
; Sequence 36, Application US/09453702B
; Patent No. 6365723
; GENERAL INFORMATION:
; APPLICANT: Blattner, Frederick R.
; APPLICANT: Burland, Valerie
; APPLICANT: Perna, Nicole T.
; APPLICANT: Plunkett, Guy
; APPLICANT: Welch, Rod
; TITLE OF INVENTION: No. 6365723el Sequences of E. coli O157
; NUMBER OF SEQUENCES: 265
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Db 73 TNARRTCNARNSWRAADATNGTNGT 49

RESULT 8
US-09-397-992A-6/c
; Sequence 6, Application US/09397992A
; Patent No. 6329175
; GENERAL INFORMATION:
; APPLICANT: Conklin, Darrell
; APPLICANT: Grant, Francis J.
; APPLICANT: Rixon, Mark W.
; APPLICANT: Kindsvogel, Wayne
; TITLE OF INVENTION: Interferon-epsilon
; FILE REFERENCE: 98-46
; CURRENT APPLICATION NUMBER: US/09/397,992A
; CURRENT FILING DATE: 1999-09-16
; PRIOR FILING DATE: 1998-09-18
; PRIOR FILING DATE: 1999-02-05
; PRIOR FILING DATE: 1999-07-08
; PRIOR FILING DATE: 1999-07-08
; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 6
; LENGTH: 624
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: This degenerate sequence encodes the amino acid
; NAME/KEY: variation
; LOCATION: (1)...(624)
; OTHER INFORMATION: n is any nucleotide
US-09-397-992A-6

Query Match          1.0%; Score 36; DB 4; Length 624;
Best Local Similarity 26.8%; Pred. No. 1.2;
Matches 71; Conservative 60; Mismatches 131; Indels 3; Gaps 1;

QY 3421 TTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 3480
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 310 TTYCTCTCCANCCTCNARNSDATRTTNGCNCKRAANRNSWEADATYTGYNARCA 251

QY 3481 TTTTTCATATTTACTATTTATGATGATTTTAAAGTGTGTTTATTAAGGACAGAGTTCTG 3540
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 250 TYTCRTGNARDATNGCNARNGRTGNCCTTYYT---GRATYGTGNGNSWNRNSWYT 194

QY 3541 TTAGGGGTGGGAGGAATATTTAGGGAGGCTGGGTCTTTAGGGAAGGAATGGGAAGC 3600
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 193 TYTGNGGNARNARRAATTTTNCRTGNGNARRCAATGYTGDATNSWNRNGTYTGN 134

QY 3601 AACATTTTATTAAGTGTACTATTTGCTCTACTTTGTTGTTTACAGAAATGGCAATA 3660
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 133 RYTRTTNARNARVTTNARNSWYTCYTRTNACYTGNCKYGTGTGRAADATATNARYT 74

QY 3661 CAATATAAAGTGATATATGTTTT 3685
      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 73 TNARRTCNARNSWRAADATNGTNGT 49

RESULT 9
US-09-453-702B-36
; Sequence 36, Application US/09453702B
; Patent No. 6365723
; GENERAL INFORMATION:
; APPLICANT: Blattner, Frederick R.
; APPLICANT: Burland, Valerie
; APPLICANT: Perna, Nicole T.
; APPLICANT: Plunkett, Guy
; APPLICANT: Welch, Rod
; TITLE OF INVENTION: No. 6365723el Sequences of E. coli O157
; NUMBER OF SEQUENCES: 265
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; ZIP: 01701
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/658,136
; FILING DATE:
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: LASSEN, ELIZABETH
; REGISTRATION NUMBER: 31,845
; REFERENCE/DOCKET NUMBER: GEN4-17.8
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 508-872-8400
; TELEFAX: 508-872-5415
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 53526 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-658-136-2

Query Match 1.0% Score 36; DB 3; Length 53526;
Best Local Similarity 51.2%; Pred.No. 26;
Matches 84; Conservative 0; Mismatches 80; Indels 0; Gaps

QY 241 AGAGCGCGCTGCACGTGTCCTGAGGAGGGCCCGAGGGGGCGGGAGGTGGCCCCACAGAA 300
Db 35344 AGAGGGGGATGGGATGGGAGGAGGGAGGGAGGGAGGGAGTGGGAGGGGAGGA 35285
QY 301 CGCGGGTTCTGAAGAGACGTTGGGAGATTGATTCCGAGAGAGGAGAACCGGATT 360
Db 35284 GGCGGGCATGGGAGGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 35285
QY 361 GAAGAAGACCAGGCCGCTGAGGGGGAGGGGGGGTGCTTAAGATGG 404
Db 35224 GGAGGAGAGGGGGGGATAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 35181

RESULT 11
US-08-658-136-1/c
; Sequence 1, Application US/08658136
; Patent No. 6071717
; GENERAL INFORMATION:
; APPLICANT: KLINGER, KATHERINE W
; APPLICANT: LANDES, GREGORY M
; APPLICANT: BURN, TIMOTHY C
; APPLICANT: CONNORS, TIMOTHY D
; APPLICANT: DACKOWSKI, WILLIAM
; APPLICANT: GERMINO, GREGORY
; APPLICANT: QIAN, FENG
; TITLE OF INVENTION: POLYCYSTIC KIDNEY DISEASE GENE
; NUMBER OF SEQUENCES: 58
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: GENZYME CORPORATION
; STREET: ONE MOUNTAIN ROAD
; CITY: FRAMINGHAM
; STATE: MASSACHUSETTS
; COUNTRY: USA
; ZIP: 01701
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/658,136
; FILING DATE:
; CLASSIFICATION: 435

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;; PRIOR APPLICATION NUMBER: US 60/055,779
;; PRIOR FILING DATE: 1997-08-14
;; NUMBER OF SEQ ID NOS: 5674
;; SEQ ID NO 2534
;; LENGTH: 1164
;; TYPE: DNA
;; ORGANISM: Staphylococcus epidermidis
US-09-134-001C-2534

Query Match 1.0%; Score 35.8; DB 4; Length 1164;
Best Local Similarity 49.7%; Pred. No. 2.1;
Matches 91; Conservative 0; Mismatches 92; Indels 0; Gaps 0;
QY 957 AAGAGGGGGAATTTCTGAGAGAGCTGCTCCAGGATACATCAATCAACAGAAC 1016
Db 759 AACATCAGTAATACGACCATCATTTTCTTCAACTATTTCTTACTGTGCTTCC 700
QY 1017 CTCGGACTTTGTCCTAAATTCATGACTGTGTCAGGAGGTGGCAAGAAC 1076
Db 699 TTCATTTAAAGTGGTTTAACTCTGCCAAGTGTCTGAGAGTAAGTTGAGTTTAAATACT 640
QY 1077 TTCGGATTGCTGATGACAAATCTTTTACCAGATCGGTAAATGCATATCAATATG 1136
Db 639 TTCATCTGATTAAATATTTCCACTTTTCACTTTGAACGGTAAATTTCTTGGGAATATT 580
QY 1137 ACC 1139
Db 579 ACC 577

RESULT 15

US-09-072-596-323/c
; Sequence 323, Application US/09072596
; Patent No. 6458366
; GENERAL INFORMATION:
; APPLICANT: Reed, Steven G.
; APPLICANT: Skeiky, Yasir A.W.
; APPLICANT: Dillon, Davin C.
; APPLICANT: Campos-Neto, Antonia
; APPLICANT: Houghton, Raymond
; APPLICANT: Vedvick, Thomas S.
; APPLICANT: Twardzik, Daniel R.
; APPLICANT: Lodes, Michael J.
; APPLICANT: Hendrickson, Ronald C.
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR DIAGNOSIS OF TUBERCULOSIS
; NUMBER OF SEQUENCES: 350
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: SEED and BERRY LLP
; STREET: 6300 Columbia Center, 701 Fifth Avenue
; CITY: Seattle
; STATE: Washington
; COUNTRY: USA
; ZIP: 98104-7092
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA: US/09/072,596
; APPLICATION NUMBER: US/09/072,596
; FILING DATE: 05-MAY-1998
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Maki, David J.
; REGISTRATION NUMBER: 31,392
; REFERENCE/DOCKET NUMBER: 210121.417C9
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (206) 622-4900
; TELEFAX: (206) 682-6031
; INFORMATION FOR SEQ ID NO: 323:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1166 base pairs
; TYPE: nucleic acid

;; STRANDEDNESS: single
;; TOPOLOGY: linear
;; MOLECULE TYPE: Genomic DNA
US-09-072-596-323
Query Match 1.0%; Score 35.8; DB 4; Length 1166;
Best Local Similarity 29.1%; Pred. No. 2.1;
Matches 83; Conservative 54; Mismatches 148; Indels 0; Gaps 0;
QY 163 GCGGTTAAACTTGTGAGGGGGTGGGAGCGTGTCTTCCCATGCCCAGGCGAATGGT 222
Db 559 GAGGGGAANKMTGSGRKRAGADMGTSGRKATNGGTGCMAGNGKTCAGRYNGSGG 500
QY 223 GTGGCCTTGAGCTGTGTCAGGAGCCGGCTCGACGTGTCTGAGGAGGCCCCGGAGGGGGCG 282
Db 499 GNKKANAGGWACCGGANKGARTGRGAKMKGGAGGGRRNCARGGTGNTGAGRCSCG 440
QY 283 GGAGAGTGCGCCACAGACCGGGGTTCTGTAAAGAGACGTTGGGAAGATTCGATTCCGAG 342
Db 439 KKGGRATGACGAGGGRTWGSMTGTCGGGGGKNRAKTASTCCNNGRAKAGRASACCKMK 380
QY 343 AAGAGGAAGAACCGGATTGAAAGAGAGCCAGCGCTGAGGGGGGAGGGGCTGCTAAGAT 402
Db 379 SAKTTSWGRKSSAGNGKKAAGGAMCNARWNCCTTSCCGRGTTRRSAAACCSACATT 320
QY 403 GCGCTCGGCTCTCCCGGGCCGTCGTCTTGGTCGGTTTTTTCATC 447
Db 319 CCGGTTACCGGTATTGAAACCCAGCCGCGTCAGRTTTRTYACC 275

Search completed: May 13, 2003, 02:16:52

Job time : 709 secs

QY 61 TGCTGTTTTTTTCAGATGTGGCTTGTGGGCGCAAGGTCCTCAGCAGCCAGCTTA 120
DB 61 TGCTGTTTTTTTTCAGAGTGGCTTGTGGGCGCAAGGTCCTCAGCAGCCAGCTTA 120
QY 121 AGCTTACTCTTCTGTGAAAGGGGAAAGATATCCCTGTGTGAAAGGGTAACTTGTGGAG 180
DB 121 AGCTTACTCTTCTGTGAAAGGGGAAAGATATCCCTGTGTGAAAGGGTAACTTGTGGAG 180
QY 181 GGGGTGCGGGAGCGTGAAGTCTTCCCATGCGAGCGAAATGTGTGGCTTGTGAGCTGTGCC 240
DB 181 GGGGTGCGGGAGCGTGAAGTCTTCCCATGCGAGCGAAATGTGTGGCTTGTGAGCTGTGCC 240
QY 241 AGGAGCCGCGCTCGACGTGTCTGAGAGGAGG - CCGGAGGGGGCGGGAGAGTGGCCCAAGA 299
DB 241 AGGAGCCGCGCTCGACGTGTCTGAGAGGAGGCGCGAGGGGGCGGGAGAGTGGCCCAAGA 300
QY 300 AGCGGGGTTCTGTAAAGAGAGGTTGGAGATTGCAATTCGAGAGAGAGAGAAACCGGAT 359
DB 301 AGCGGGGTTCTGTAAAGAGAGGTTGGAGATTGCAATTCGAGAGAGAGAGAAACCGGAT 360
QY 360 TGAAGAGAGCGCAGGCGCTGAGAGGGAGGGGGCTGCTAAGATGGCGTCCGCTTCTCG 419
DB 361 TGAAGAGAGCGCAGGCGCTGAGAGGGAGGGGGCTGCTAAGATGGCGTCCGCTTCTCG 420
QY 420 GGGCGTGTCTTCCGTGGCTTTTTCATCTTTGATCCCGCGGTCCCTTCTGTACTTGT 479
DB 421 GGGCGTGTCTTCCGTGGCTTTTTCATCTTTGATCCCGCGGTCCCTTCTGTACTTGT 480
QY 480 CCTCAGCATCTGSAATCAAGAGACCATGGCATCTGAGGTGCTTAAGCTGTGGCATGC 539
DB 481 CCTCAGCATCTGSAATCAAGAGACCATGGCATCTGAGGTGCTTAAGCTGTGGCATGC 540
QY 540 CCATCAAGAAATATAGCCATAGAGTGTGATTCTCTAGAGAGAGCAATATATAAAGA 599
DB 541 CCATCAAGAAATATAGCCATAGAGTGTGATTCTCTAGAGAGAGCAATATATAAAGA 600
QY 600 CAACCTCATAGCCTTGAAGAGTGCATCCAGTTAGGCAATACCAACTGTGGGAGACC 659
DB 601 CAACCTCATAGCCTTGAAGAGTGCATCCAGTTAGGCAATACCAACTGTGGGAGACC 660
QY 660 TGAATACCAAAACAGAGAGGTATGCTCATGCAAGATTTTCTAAGTGTGAGATATCT 719
DB 661 TGAATACCAAAACAGAGAGGTATGCTCATGCAAGATTTTCTAAGTGTGAGATATCT 720
QY 720 TCTTTCAGTGAAGAGCAACTGACCCCTGCTCATCTAACAATGACTTTCGTTTCA 779
DB 721 TCTTTCAGTGAAGAGCAACTGACCCCTGCTCATCTAACAATGACTTTCGTTTCA 780
QY 780 AGACCTATGCACTGTGTGCTTCCGCTACTTCCGGAGCTATTTGTATCCGGCCCGATG 839
DB 781 AGACCTATGCACTGTGTGCTTCCGCTACTTCCGGAGCTATTTGTATCCGGCCCGATG 840
QY 840 ATTACTTGTATTCCTCTGCAAGTGAAGCGGCTGATTGAATCTGTATGCTGTGAGCTATG 899
DB 841 ATTACTTGTATTCCTCTGCAAGTGAAGCGGCTGATTGAATCTGTATGCTGTGAGCTATG 900
QY 900 GTTCCCTATTTCTATGTGTGCAAGCAATGAGTTCAATTAAGAAGTCCAACTAAAG 959
DB 901 GTTCCCTATTTCTATGTGTGCAAGCAATGAGTTCAATTAAGAAGTCCAACTAAAG 960
QY 960 AGGCGGAATTTCTGCAAGAGTGTCTTCCAGATATCTAATGAACTCAACCAAGCCCTC 1019
DB 961 AGGCGGAATTTCTGCAAGAGTGTCTTCCAGATATCTAATGAACTCAACCAAGCCCTC 1020
QY 1020 GGAATTTGCTGCTAAATTTCTATGACTGTATCTGTGTGCAAGGAGGTGCAAGCAATTC 1079
DB 1021 GGAATTTGCTGCTAAATTTCTATGACTGTATCTGTGTGCAAGGAGGTGCAAGCAATTC 1080
QY 1080 GGAATTTGCTGCTAAATTTCTATGACTGTATCTGTGTGCAAGGAGGTGCAAGCAATTC 1139
DB 1081 GGAATTTGCTGCTAAATTTCTATGACTGTATCTGTGTGCAAGGAGGTGCAAGCAATTC 1140

QY 1140 TCAAGGCTCAACCTTCAAAAGGCGGGCTTCCAGAAAGAGCGAGAGGCTCTTCCCA 1199
DB 1141 TCAAGGCTCAACCTTCAAAAGGCGGGCTTCCAGAAAGAGCGAGAGGCTCTTCCCA 1200
QY 1200 CATTAAAGACTTGAAGCTTCTTCAAGACATCCCTGATGAGTCTTTTGTGATGCTGACA 1259
DB 1201 CATTAAAGACTTGAAGCTTCTTCAAGACATCCCTGATGAGTCTTTTGTGATGCTGACA 1260
QY 1260 TGTACAAGCTCTCTGTGAAGACCTGTGAGGCTGACTGTGTGTGCTGCAAGCTTCAAGA 1319
DB 1261 TGTACAAGCTCTCTGTGAAGACCTGTGAGGCTGACTGTGTGTGCTGCAAGCTTCAAGA 1320
QY 1320 TAATGATTAAGGCTCTGTATGATCAATCCATATATATGATCATGCAAGAGGCTCT 1379
DB 1321 TAATGATTAAGGCTCTGTATGATCAATCCATATATATGATCATGCAAGAGGCTCT 1380
QY 1380 TAAGCAGTGAACACAGTACTAGTTGATCTGAAAGCGGCGCCCAAGGCTCTGT 1439
DB 1381 TAAGCAGTGAACACAGTACTAGTTGATCTGAAAGCGGCGCCCAAGGCTCTGT 1440
QY 1440 ATTCCAGAGCCATGGAATTCATCCAGGAGAGAGCTGAGCGGGTGTATCCATGAGACTG 1499
DB 1441 ATTCCAGAGCCATGGAATTCATCCAGGAGAGAGCTGAGCGGGTGTATCCATGAGACTG 1500
QY 1500 ATGACCATATGGGTGGGATCCCTGCGCGGAATGTAAAGGGGAAAGGCTCTGCTTATA 1559
DB 1501 ATGACCATATGGGTGGGATCCCTGCGCGGAATGTAAAGGGGAAAGGCTCTGCTTATA 1560
QY 1560 TTGGCATCATTTGACATTTCAAGCTCTTACAGTGTGTTAAGAGTTGAGACACTTGTGA 1619
DB 1561 TTGGCATCATTTGACATTTCAAGCTCTTACAGTGTGTTAAGAGTTGAGACACTTGTGA 1620
QY 1620 AAGCCTGTGTATGACGAGAGACATGTCTGATGATATGCCAGGCTTACGCTGATAC 1679
DB 1621 AAGCCTGTGTATGACGAGAGACATGTCTGATGATATGCCAGGCTTACGCTGATAC 1680
QY 1680 GGTTCAGGCGCTTATGATGCAACAGATTTAAGAGATTCCTTGAAGCTTCTCTCT 1739
DB 1681 GGTTCAGGCGCTTATGATGCAACAGATTTAAGAGATTCCTTGAAGCTTCTCTCT 1740
QY 1740 CCAAAAAGTTTCGCTGTGCTCATCTTCTCTCGGAGAGAGGCTCCAGTGGCAACTCT 1799
DB 1741 CCAAAAAGTTTCGCTGTGCTCATCTTCTCTCGGAGAGAGGCTCCAGTGGCAACTCT 1800
QY 1800 GCATTACTTACACAGCATTCGCTCTGTGGGAAACAGGCAAGTGAACAACAAAGGAG 1859
DB 1801 GCATTACTTACACAGCATTCGCTCTGTGGGAAACAGGCAAGTGAACAACAAAGGAG 1860
QY 1860 AAGTGAAGCCAGGCGTTCACTTGTGTGCTGATGTTTAACTCAGACTCACTTGG 1919
DB 1861 AAGTGAAGCCAGGCGTTCACTTGTGTGCTGATGTTTAACTCAGACTCACTTGG 1920
QY 1920 AGAATATCAGTGAAGGCTGCGCTATTCCTGACCCAGTTCCTCACTTGAAGAGA 1979
DB 1921 AGAATATCAGTGAAGGCTGCGCTATTCCTGACCCAGTTCCTCACTTGAAGAGA 1980
QY 1980 CTTTGCAATCTTACATCAAGTGAACCTTGGAAAAGCTTGAAGTGTGAGAGTCAAGT 2039
DB 1981 CTTTGCAATCTTACATCAAGTGAACCTTGGAAAAGCTTGAAGTGTGAGAGTCAAGT 2040
QY 2040 TCACCCATTAAGGCGCAAGGCTCAGAAAGCCTGGAACAAGATTCGCAATCTGTGATC 2099
DB 2041 TCACCCATTAAGGCGCAAGGCTCAGAAAGCCTGGAACAAGATTCGCAATCTGTGATC 2100
QY 2100 CCAAGATGTCAGCCCTTGCCTCCAGCAATGCTGAATTTTCTTCACTTGTGATCAAAAA 2159
DB 2101 CCAAGATGTCAGCCCTTGCCTCCAGCAATGCTGAATTTTCTTCACTTGTGATCAAAAA 2160
QY 2160 GGAATGTATGAAGTGAAGGAGGAGCTGCTCATCTTCTTCTGAAAGAACTTCT 2219
DB 2161 GGAATGTATGAAGTGAAGGAGGAGCTGCTCATCTTCTTCTGAAAGAACTTCT 2220
QY 2220 CTCCTTCTCTTCTCATGAATGGGCTTATGTGCTCAGAGAGTTGAGAGCCGAGATC 2279

Db	2453	CTTTGGAAAATGCTAACTCAAGTACCAACTCTTGGAAAAGCTTGAAGTTGACAGTCAAGAGT	2512
Qy	2040	TCACCCATTAAAGGCAAAAGCTCTACAAAGACTGGAAGCAAAATTCGTGCAACTCTGTGATC	2099
Db	2513	TCACCCATTAAAGGCAAAAGCTCTACAAAGACTGGAAGCAAAATTCGTGCAACTCTGTGATC	2572
Qy	2100	CCAAAGATGTCAAGCCCTTGGCCCCAGCAATCTGTAATTTTCTCTCACTTGTGATCAAAAAA	2159
Db	2573	CCAAAGATGTCAAGCCCTTGGCCCCAGCAATCTGTAATTTTCTCTCACTTGTGATCAAAAAA	2532
Qy	2160	GGAGTGTAAATAGAAGTGAGGGGAGCTGTCTCTCACTTTCTTCTCTGAAGAAAGACTTCT	2219
Db	2533	GGAGTGTAAATAGAAGTGAGGGGAGCTGTCTCTCACTTTCTTCTCTGAAGAAAGACTTCT	2592
Qy	2220	CTCTCTCTCTCTCTCAATGAAATGGGACTTAAGTCCCAAGAGATTGAAGACCGAGCATC	2279
Db	2593	CTCTCTCTCTCTCTCAATGAAATGGGACTTAAGTCCCAAGAGATTGAAGACCGAGCATC	2752
Qy	2280	CCCTCCACTCCAGAGTTGGGTGTGAGGAAATTTCAACTGGCCAAACCTTTTGCTCCCACTA	2339
Db	2753	CCCTCCACTCCAGAGTTGGGTGTGAGGAAATTTCAACTGGCCAAACCTTTTGCTCCCACTA	2812
Qy	2340	TTGGAATTTTTCAGAACCCCATTTCTTCATAGCTGTGAATAAGGGAATTGTGTGAAGCTTGGAGC	2399
Db	2813	TTGGAATTTTTCAGAACCCCATTTCTTCATAGCTGTGAATAAGGGAATTGTGTGAAGCTTGGAGC	2872
Qy	2400	TTTCTTTCCCTCGTCTTTGACTAGAGAACCGGACTTTAATTTTCTCTCAGACAGACTAGC	2459
Db	2873	TTTCTTTCCCTCGTCTTTGACTAGAGAACCGGACTTTAATTTTCTCTCAGACAGACTAGC	2932
Qy	2460	TGGCACTATTCCTTACCTTAAGTTCTTCTCTGTGACTCCGTGGGAAGATACCTCTGTAT	2519
Db	2933	TGGCACTATTCCTTACCTTAAGTTCTTCTCTGTGACTCCGTGGGAAGATACCTCTGTAT	2992
Qy	2520	CTCTGTAAAGGTTTTTGGGGGATTAAGGGTGTAAACACTCCACGCTTCTCTCTCTT	2579
Db	2993	CTCTGTAAAGGTTTTTGGGGGATTAAGGGTGTAAACACTCCACGCTTCTCTCTCTT	3052
Qy	2580	TTTTTTTCTGAAAAAAGAAAAAGCACACAGCACACATTTCAAGCATTTCAGATCAG	2639
Db	3053	TTTTTTTCTGAAAAAAGAAAAAGCACACAGCACACATTTCAAGCATTTCAGATCAG	3112
Qy	2640	AACCTCAGAAGTGTGACAAGAGCTTAATCGTAGAGTTCCCTCAGAAAGGCAAGGT	2699
Db	3113	AACCTCAGAAGTGTGACAAGAGCTTAATCGTAGAGTTCCCTCAGAAAGGCAAGGT	3172
Qy	2700	TTATGAGAAGAAGTGTGTATTTGCTCTGCGAAGACAGCTCCTCTTAACTCTCTCTC	2759
Db	3173	TTATGAGAAGAAGTGTGTATTTGCTCTGCGAAGACAGCTCCTCTTAACTCTCTCTC	3232
Qy	2760	TCTTGATGAAATTTCTTAAAGCTGAAGAAATGAAGAAGTGGGACATGGGGTAACTCTTAT	2819
Db	3233	TCTTGATGAAATTTCTTAAAGCTGAAGAAATGAAGAAGTGGGACATGGGGTAACTCTTAT	3292
Qy	2820	CCCTTTGTGTTAAACAGAGGCGACCACTGGGCTGGGAGATCATAGCCCTTCTTAGCGAGA	2879
Db	3293	CCCTTTGTGTTAAACAGAGGCGACCACTGGGCTGGGAGATCATAGCCCTTCTTAGCGAGA	3352
Qy	2880	ATCTCTGTCACTGCGAGGCTATAGTAATTAATTAATTAATTTGCAATTTGAAATATATCTG	2939
Db	3353	ATCTCTGTCACTGCGAGGCTATAGTAATTAATTAATTAATTTGCAATTTGAAATATATCTG	3412
Qy	2940	GTTGTGTTTTCTTAAATGTGAACACTTACAATGAATTTAGATCATTTCCACAGAGAGAT	2999
Db	3413	GTTGTGTTTTCTTAAATGTGAACACTTACAATGAATTTAGATCATTTCCACAGAGAGAT	3472
Qy	3000	TTTTTTTGTCTTCTCATCTTTTCCACAGAGTTCTCTGTGTTGGAGCTAAGGTAAAG	3058
Db	3473	TTTTTTTGTCTTCTCATCTTTTCCACAGAGTTCTCTGTGTTGGAGCTAAGGTAAAG	3532
Qy	3060	AGGGGACACTTGTCTGTCTTTTAAACAGACAGTCAATCTGTGAGGCGACAGAAATTTTCT	3119
Db	3533	AGGGGACACTTGTCTGTCTTTTAAACAGACAGTCAATCTGTGAGGCGACAGAAATTTTCT	3592

OY	3120	TTAACTCTATGGGAGACAGAGATTCTTGCTGTGGAGGTCAATGGCTGAGCCATAGT	3179
Db	3593	TTTAAACTCATGGGAGACAGAGATTCTTGCTGTGGAGGTCAATGGCTGAGCCATAGT	3652
OY	3180	CCCTACCCCCCTGTCTTTCATGACAGGAAATTGGAAATGGGGGCTACATATGCCCTCTCTC	3239
Db	3653	CTTACCCCCCTGTCTTTCATGACAGGAAATTGGAAATGGGGGCTACATATGCCCTCTCTC	3712
OY	3240	CCCGCTACAGAGTGTGTGTTTCCATCTGATCCTTCACCTCTTGTCAAGGGAGAAAG	3299
Db	3713	CCCGCTACAGAGTGTGTGTTTCCATCTGATCCTTCACCTCTTGTCAAGGGAGAAAG	3772
OY	3300	GGGCTGTATCTCAGGAGAAATGTGTAATCCGTCTATCCCTCTCTATCCCACT	3359
Db	3773	GGGCTGTATCTCAGGAGAAATGTGTAATCCGTCTATCCCTCTCTATCCCACT	3832
OY	3360	GCCTGATATATGTATGCCATATCCCAATTAACGTCTATATTAGACACCCGAGCA	3419
Db	3833	GCCTGATATATGTATGCCATATCCCAATTAACGTCTATATTAGACACCCGAGCA	3892
OY	3420	GTTTCTGCTGCTGTCTTTGCTGCATGTTTTTACAGAAAGAAAGATCTTGCTAT	3479
Db	3893	GTTTCTGCTGCTGTCTTTGCTGCATGTTTTTACAGAAAGAAAGATCTTGCTAT	3952
OY	3480	TTTTTTTCATATTTACTATTATATGATATTAAGTTTTATTAAGACAGAGTCT	3539
Db	3953	TTTTTTTCATATTTACTATTATATGATATTAAGTTTTATTAAGACAGAGTCT	4012
OY	3540	GTTAGGGGTGGAGGAAATTTGAGGAGGGCTGGCTTATGAGGAAAGAAATGGGAG	3599
Db	4013	GTTAGGGGTGGAGGAAATTTGAGGAGGGCTGGCTTATGAGGAAAGAAATGGGAG	4072
OY	3600	CACATTTTTTATTAAGTGTACTATTTGCTTACTTTGTATGTTCAGAAATGGCAAT	3659
Db	4073	CACATTTTTTATTAAGTGTACTATTTGCTTACTTTGTATGTTCAGAAATGGCAAT	4132
OY	3660	ACATATTAAGTGTATATGTGTTTAAATGATATAAAGTTATATGATATTTA	3713
Db	4133	ACATATTAAGTGTATATGTGTTTAAATGATATAAAGTTATATGATATTTA	4186

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RESULT 5
US-60-324-185-24985
; Sequence 24985, Application US/60324185
; GENERAL INFORMATION:
; APPLICANT: Morris, MacDonald
; APPLICANT: Lal, Preeti
; TITLE OF INVENTION: Diep, Dinh
; TITLE OF INVENTION: METHOD FOR THE IDENTIFICATION OF SEQUENCE POLYMORPHISMS USING
; TITLE OF INVENTION: POLYNUCLEOTIDE SEQUENCE DATABASES, AND SINGLE NUCLEOTIDE
; TITLE OF INVENTION: POLYMORPHISMS IDENTIFIED THEREBY
; FILE REFERENCE: GX-0019-1 P
; CURRENT APPLICATION NUMBER: US/60/324,185
; CURRENT FILING DATE: 2001-09-21
; NUMBER OF SEQ ID NOS: 35862
; SOFTWARE: PERL Program
; SEQ ID NO 24985
; LENGTH: 3720
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No: 348086.13
US-60-324-185-24985

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Query Match	Similarity	99.3%	Score 3688;	DB 76;	length 3720;
Best Local	Similarity	99.9%	Pred. No. 0;		
Matches 3711;	Conservative	0;	Mismatches	0;	Indels 3; Gaps 2
QY	1	ATTAAAGAGCCCTGGTTAGGAAGAGAGAGGCGCTTCCTCTTTGGACTTTCA	60		
Db	1	ATTAAAGAGCCCGTGGTTAGGAAGAGAGAGGCGCTTCCTCTTTGGACTTTCA	60		